

APRIL 16, 1892

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THE CHEMIST AND DRUGGIST
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AS IMPORTED.

PERSIAN
BOUQUET
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Cucumber
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Glycerine Cream
IN
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TO
LARGE BUYERS.

Inquiries should state quantities.

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GLASS BOTTLES.. 6d., 1/, 2/, 5/ Retail.
4/, 8/, 16/, 38/ per dozen.
BULK 1/ per lb. 100/ cwt. in 2-gallon Bottles.
90/ in 1-cwt. Kegs. 85/ in 3-cwt. Barrels.

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BULK 1/ per lb. 84/ cwt. in cwt. Kegs.

Essence of Rennet, For Junkets, Curds and Whey, Cheese Cakes, &c., &c.

GLASS BOTTLES.. 6d., 1/, 2/, 5/ Retail.
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BULK 1/ per lb. 10d. in 2-gallon Bottles.

Liquid Annatto, or Cheese Colouring.

STONE BOTTLES. 6d., 1/, 2/, 5/ Retail.
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BULK 1/ per lb. 10d. in 2-gallon Bottles.
84/ in 12-gallons. 80/ in 3-cwt. casks.

Cheese Rennet, OF SPECIAL STRENGTH.

STONE BOTTLES.. 1-pints, 9d. Retail. 7/ doz.
Pints, 1/3 " 12/ "
Quarts, 2/ " 20/ "
1-gall., 4/ " 36/ "
1-gall., 8 " 72/ "
BULK. At Special Prices. Inquiries should state quantity.

These Goods are selling well in the Agricultural districts. They are very attractively got up, are superior to any foreign makes, and are well worth the attention of the Trade, as they leave a good margin to the seller.

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SPRATT'S PATENT LIMITED
 MANUFACTURERS

Henry Street, *BERMONDSEY ST.* LONDON, 16th April, 1892.
 S.E.

Gentlemen,

You will find our medicines well worth your special attention, as they are always reliable, being made on scientific lines (no quackery). As a large section of the public now take a keen interest in Dogs, our goods lead to business for the other articles you sell.

We shall be happy to forward you a supply of our handy little pamphlets on canine diseases for distribution, also to quote terms,

Yours faithfully,

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We offer these in all varieties. If you want a special size or shape, send us a sample, and we can quote you and deliver the goods, with your name stamped on, within a week of receipt of order.

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In bulk, or packed in suitable bottles as required.

Prompt deliveries.

New Price Lists (illustrated), on receipt of Business Card, free, to Registered Chemists and Druggists.

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Eagle Laboratories, MANCHESTER.

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Botany, Prof. GREEN, B.Sc., &c. Practical Pharmacy, Mr. JOSEPH INCE, F.C.S., &c. Materia Medica, Mr. H. G. GREENISH, F.L.S.**FIFTIETH SESSION, 1891-92.***Application for admission to the School, for Prospectuses, or for further information or advice may be made to the Dean, PROF. ATTFIELD, F.R.S., or the Professors or their Assistants in the Lecture Room or Laboratories, 17 Bloomsbury Square, London, W.C.***WESTMINSTER COLLEGE**

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In Parasitic Eczema, Acne Vulgaris, Acne Rosacea.

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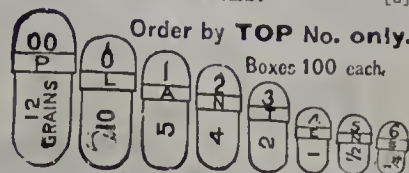
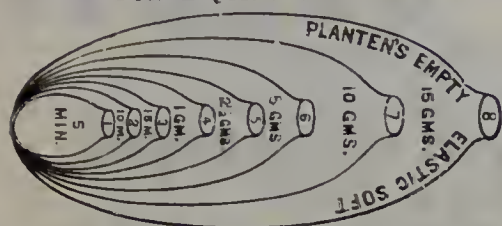
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ON

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Absolutely Genuine Paraffinum Molle of the very Purest Form, and we claim that it is superior to Vaseline.

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WHITE, LEMON, YELLOW, GOLDEN AND VETERINARY.
PACKED IN TINS, 1, 5, 10, 14, 28, 56, and 112 lbs. Also in 3-cwt. Casks.

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UNIVERSALLY ADOPTED BY THE MEDICAL PROFESSION FOR
**OPHTHALMIA, SCURVY, RINGWORM, ECZEMA,
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For External and Internal Irritation of every kind.

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THE ONLY SAFE RELIABLE PHOSPHORIC CURE
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Egg Julep, 2/6,
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Stimulating Lotion, 5/-,
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Lotion, 5/-, 10/6.

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EUCHRISMA.
Combines in one clear fluid every valuable
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For restoring the original colour of Grey Hair;
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An elegant Preparation for
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Price 2/6, 3/6, 5/-, 10/6, 21/-.

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PRICE ONE SHILLING.

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**WHITE, SOUND TEETH.**

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[1]

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Highly recommended by authorities. The only make of perfect purity in all respects.

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Burchell's Anodyne Necklaces, Ford's Balsam of Horehound, Widow Welch's Pills, by Mrs. Smithers, Oxley's Essence Ginger, and the preparations of Messrs. Hudson & Son, late of the Haymarket, London.

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LEO & CO.'S COMPRESSED DRUGS

Maintain their high reputation against all comers for general excellence of quality and finish.

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	1 lb.	7 lbs.
CHLORATE OF POTASH - - - -	1/2	1/-
CHLORATE OF POTASH AND BORAX - -	1/2	1/-
COMPOUND SULPHUR - - - -	1/2	1/-
SODA BICARB. - - - -	1/2	1/-
SODA MINT - - - -	1/2	1/-

NET CASH WITH ORDER.

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ORIGINAL
GRANULAR
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PREPARATIONS

"ALFRED BISHOP" was the Inventor and Original Manufacturer of all Granular Effervescent Preparations. All others are imitations. SILVER MEDAL, HIGHEST AWARD, PARIS, 1889.

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AND ALL OTHER GRANULAR EFFERVESCENT PREPARATIONS

Price Lists Post Free on application.

None genuine without this Trade Mark.



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This Section of "The Chemist and Druggist" must be closed for press by Wednesday morning's post of each week. Remittances payable to EDWARD HALSE.

TERMS.

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of 1d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.," and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as e.g., £1 10s. 6d.

DEPOSIT OF MONEY.—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us, accompanied by a commission of 6d. if the amount is £3 or under; and 1s. if over that sum. We acknowledge receipt of deposit to both parties, and hold the money until we are satisfied that either the goods are returned to their original owner or the purchase is completed.

Postal orders and cheques sent as deposit must be made payable to Edward Halse, and crossed "Martin's Bank (Limited)."

FOR DISPOSAL.

Formulas.

Tom Brooks's recipes (14th year), warranted practical, and certain to please; detailed list post free; sanitary furniture cream, herb extract, skin pills, bay rum, brilliantine, oatmeal and white rose lotion, anti-drink pills, walnut pomade, beauty cream, poppies and chamomile (for fomentation, concentrated), mist, occasional (for ladies), tannin gargle, itch ointment, blood powder, glycerine cream; special offer, above 14 as sample, for 5s., 3 for 1s. 6d., post free. Tom Brooks, Chemist, Hornsey, London, N.

Shop Fittings.

Fittings, drawers, glass cases, counters, &c., removed from large West-end chemist, to be sold together or separate; great bargains; they include very handsome dispensing-screen, three glass wall-cases, counter-case, tooth-brush case, sponge-case, window enclosure and fittings, very handsome writing-table, several mirrors in black bead frames, and other articles too numerous to mention. Philip Joseph, 54 Old Street, Goswell Road, London, E.C. Closed Monday and Tuesday, April 18 and 19.

Miscellaneous.

Hops, about 30 lbs., at 7d.; sample for stamp.

Floyd, Bury St. Edmunds.

Pearl statuette, "You Dirty Boy"; new; price 3s.; or what offers? Kirkup, Chemist, Newcastle.

1 lb. ferri carb. sacch.; 7 lbs. sol. silicate soda;

1 lb. bals. sulphur; 4 oz. Atkinson's white

rose sachet powder, 4 oz. mignonette and

6 oz. lavender ditto; 1 doz. suspenders;

1 doz. each male and female catheters;

1 doz. household toilet fixtures; 13/12 doz.

trusses, single and double; 2 doz. each 1-cz.

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nine 6d. Saunderson's wood-stains; eight 7d.

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1s. 11d. Fanning's adult powders; offers

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Chemist, Baildon.

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One Fletcher's patent coffee-roaster, roasts 3 or 4 lbs. coffee with gas in half an hour, cost 15s.; one 2 pint York Glass Co.'s percolator, only once or twice used; one 2-cwt. Avery's weighing-machine, nearly new, stamped to comply with County Councils' new regulations; Wanner cooker, "Kitchener," nearly new, cost 29s. 6d.; 2-gal. Parker's patent carbon-filter, new, 7 ft. 9 in. brass gas-rod, 1 in. diameter; 28 lb. box macaroni, in perfect condition; Chemist and Druggist for '84, '86, '87, '88, '89, '90, '91; offers wanted for any of above lots. Robinson, Chemist, Baildon.

Two specie-jars (requiring new designs), height, with mahogany stand, 34 inches, 7s. 6d. each; Dinneford's flesh-gloves, ladies' and gents' 5s., Nos. 1 and 2; sell cheap or take saleable goods for either lot. McGibbon, Wash-on-Deane.

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Gilled mortar, for outside display; or revolving lamp. John Ellis, Wortley Lane, Leeds.



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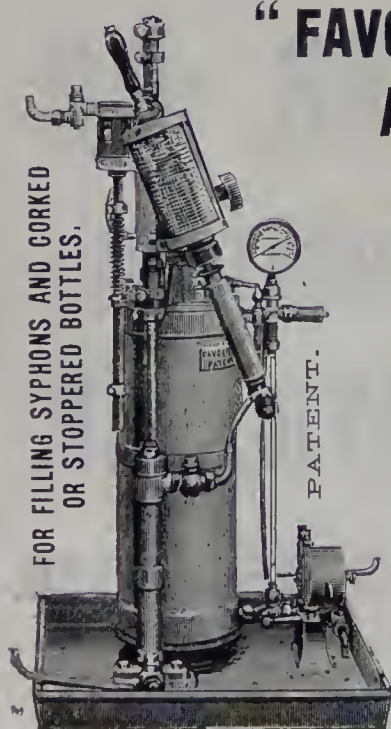
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1	2	3	4	5	8 pint.
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Including two funnels and stopper for charging.

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18

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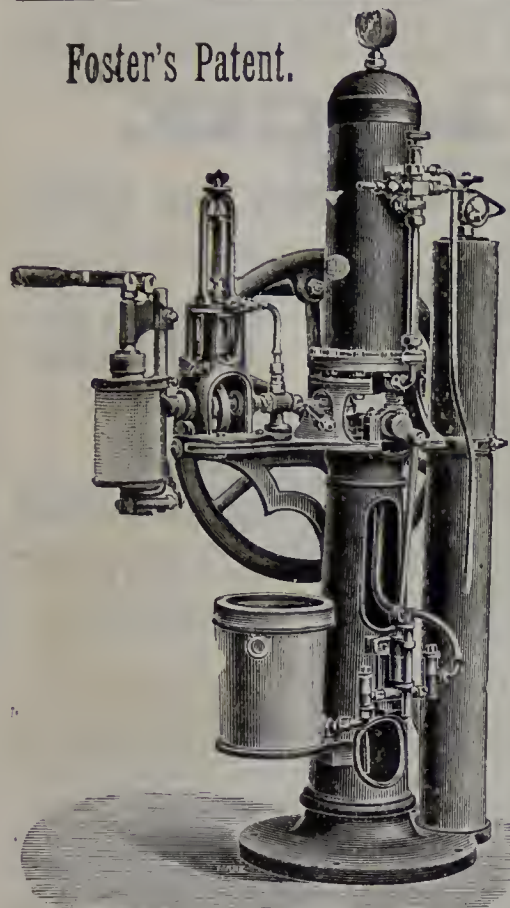
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Iron Vessel containing an average of } 10s.
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SATURDAY, APRIL 16, 1892.

Partnerships.
Situations Vacant.
Situations Wanted
Miscellaneous.

A Copy of this Supplement is inserted in every number issued of "The Chemist & Druggist."

PLEASE NOTE.

ADVERTISEMENTS for this Supplement must be received at the Office, 42 CANNON STREET, E.C., not later than 5 o'clock on Thursday Evenings, for insertion in the current week's issue.

Advertisements must be prepaid. Remittances by post may be made in stamps, or by postal order made payable to "EDWARD HALSE," and crossed MARTIN'S BANK (LIMITED). To ensure prompt attention address all communications, endorsed "Supplement," to The PUBLISHER of "THE CHEMIST AND DRUGGIST."

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HANTS.—Good-class Retail and Dispensing trade, much neglected; returns £350; price £300. This is a good chance for a pushing man, as the trade could soon be increased fourfold.

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MIDLANDS.—Retail, Prescribing, and Dispensing (a little heavy); under management of assistant; returns £750; price £300. (R 19.)

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YORKSHIRE.—Light Retail and Dispensing; returns £550; price £320; plenty of scope for pushing man. (R 17.)

LAKE DISTRICT.—Unopposed Country Retail and Dispensing, with a little heavy trade; returns £700; price £350, very profitable.

HOME COUNTY.—Good-class Dispensing trade, in best part of pretty market town; returns £600; price £550; worth attention. (306.)

MERIONETHSHIRE.—Retail, Dispensing, and Prescribing trade; returns £675; price £450, or valuation; very desirable residence.

KENTISH COAST.—First-class Retail and Dispensing; returns £650, price £550; first-rate opportunity for a pushing man to acquire a most desirable business.

NO CHARGE TO PURCHASERS.

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FOR disposal, a first-class Retail and Dispensing Business, in the West-end; capitally fitted, stock good; held on lease for 7 years from Christmas last; in present proprietor's hands 30 years; satisfactory reasons given for sale. Apply to "Chemist," 12 London Street, Paddington, W.

HOME COUNTY, about one hour's ride from City.—A good-class country Retail and Dispensing Business; returns nearly £900 at good prices; low rent; good house and convenient premises; price £700. Apply, "Radix," c/o Messrs. Meggeson & Co., 14 Miles Lane, London, E.C.

BIRMINGHAM.—£120 will purchase Stock and Fixtures of a handsome new Pharmacy; excellent house; main road; plate-glass windows; the returns would easily reach £20 per week by an energetic man; fixtures only £40, cost £72 this year; must be sold in 14 days; chance seldom met with. 19 Moseley Road, Birmingham.

£300 BARGAIN.—A Light Retail and Prescribing Business; returns until recently £14 weekly, now doing £10 under bad management; splendid position in main London thoroughfare, opposite station, S.E.; handomely fitted double-fronted shop, price £300. 3/25 Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

GUERNSEY, Channel Islands.—Market town; old-established Retail, Dispensing, and Prescribing Business in a thickly-populated neighbourhood; returns £400; convenient house, good store-room; rental £38; price to an immediate purchaser £250; ill-health only cause of disposal; particulars on application. J., 10 Fowler Street Walworth, London, S.E.

£550, £200 of which can remain.—Light Retail and Dispensing Business; grand position; densely populated locality, 5 miles from City; returns £750; net profit £300; same hands 25 years; good house, large garden; splendid chance for starting store business; owner retiring. W. D. O., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£25 CASH.—Rare chance for small capitalist.—For immediate disposal, a growing Business in main street of populous town; fortune in short time for Prescribing and Specialities; profits large; low rent (£24), good house; must sell to succeed unexpected vacancy. Address, Chown, Cloverly House, London Avenue, North End, Landport, Hants.

GOOD-CLASS Light Retail and Dispensing Business, in main thoroughfare in the S.W. district; returns over £500; shop well fitted in substantial mahogany, with plate-glass cases and mirrors; good stock; for immediate disposal at low price. J. H., c/o Messrs. Barron, Harveys & Co., Giltspur Street, E.C.

GENUINE Retail Drug Business for sale; established 20 years ago by present proprietor, who is retiring from retail; long lease, as lock-up shop, or with house; 10 minutes from Loudon Bridge, Surrey side; thickly populated; very brisk ready-money drug trade, with two or three good proprietary lines. Address, "Practical Chemist," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BUSINESSES WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED, a good reliable Retail and Dispensing Business, returning about £500 a year; must have a good house. Kindly send full particulars to A. H., 1 Grove Terrace, Truro.

A SURGEON-DENTIST requires two rooms (furnished or unfurnished) at a leading Chemist's establishment, with private entrance, in main thoroughfare of a London suburb. Write, stating terms, "Dentist," May's, 162 Piccadilly, W.

WANTED, shortly, a small reliable Business, yielding fair profits; Manchester suburb or near (Cheshire side preferred); good house. Full particulars to "Luxor," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, at once, a genuine Retail, Dispensing, and Prescribing Business, returning £600 to £800, making a fair profit; no cutting business entertained; advertiser is prepared with the cash for a suitable business. Full particulars to A. B. C., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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TO CHEMISTS.—To be sold, privately, the modern shop-fixture, comprising Bottles, Jars, Counters, Show-cases, on account of expiration of lease. Inventory can be inspected at the Auctioneers, 77 Chancery Lane, London.

CAPITAL Small Freehold Shop Property Investment, Popular; established as Chemist's for over 30 years; let for 21 years; first-class tenant; low rent, £42; price only £650; paying clear 6½ per cent.; genuine bargain; safe as ground rents and not more trouble. Freeholder, 12 Brighton Road, Croydon.

APPRENTICESHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

TO Chemists.—Wanted to place out a youth leaving school, aged 16, who has just passed the Cambridge Preliminary, as Indoor Apprentice. Address, J. MoG., 151 Eccles New Road, Salford, Manchester.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

CHEMIST (qualified) wanted, immediately, for large Store. Apply, "Chemist," c/o Mr. Thistle, 32, Searcroft Road, York.

WHOLESALE.—Vacancy for a Junior Clerk and a Junior Assistant. Langton Hicks Bros. & Co., 38 Wilson Street, Finsbury.

IN MAY.—First class Assistant for a Light business (country); good references. State age, height, salary, enclosing carte, to Townson & Co., "The Medical Hall," Altrincham, Cheshire.

WANTED, an Assistant, about 21 years of age; Light business; 4 miles from Manchester; good situation to suitable person. Apply, c/o Heath Bros., Watling Street, Manchester.

JUNIOR wanted, of good address, reliable Dispenser, in good-class Country Retail and Dispensing business. Apply, giving necessary particulars and stating salary required, to J. Griffith, Farnham, Surrey.

TUNBRIDGE WELLS.—Early in May, a qualified Assistant, accustomed to good-class Dispensing and Retail business; age about 24; two kept. With particulars, Miller & Co., 42 Mount Ephraim, Tunbridge Wells.

IMPROVER wanted in a Dispensing and General Retail business; must be steady and obliging. Apply, with full particulars, salary, &c., and carte (to be returned), "Pharmacist," 1 Spital Street, Dartford, Kent.

A QUALIFIED Assistant of active habits; one who has been accustomed to a Mixed country Retail and Dispensing business. Apply, stating salary required, references, &c., to Gostling & Co., Diss, Norfolk.

WANTED, an Assistant about 22; indoors; good Dispenser and thoroughly competent. Apply, giving full particulars and enclosing carte, to H. W. Baker, Dispensing Chemist, Spring Gardens, Buxton.

WANTED, young man to take charge of small business ten days, commencement of May. State terms, &c., to C., 6 Potter Street, Workshop.

WANTED, a good Junior; time for reading, and assistance given in studies. State experience, age, salary required, and reference (onoloso photo, if convenient) to Livesley, Chemist, New Mills, and Stockport.

ASSISTANT, qualified, about 23; indoors; accustomed to good-class Country trade. Full particulars, with photo, to E. Bug & Son, Chatterbury.

WANTED, a young man, fully qualified, to Manage Branch in town; also one for country. State age, if married or single, salary required, to "Stella," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MANCHESTER ROYAL INFIRMARY.—Junior Assistant Dispenser wanted at once; Minor qualification; not over 30 years of age, and unmarried; salary £80 per annum; hours 8.30 to 6. Apply to General Superintendent.

WANTED, by May 2, an Assistant (qualified) for good-class Country business; permanency desired. Apply, stating age, reference, and salary required, also enclose photo (which shall be duly returned), to W. H. Solomon, Chemist, Falmouth.

ASSISTANT, at once; Senior; qualified; indoors; aged about 24; must have good experience and first-class references. Prompt application, with full particulars, enclosing carte de visite, to Everett, St. Botolph's Pharmacy, Colchester.

WANTED, immediately, a Junior in a Mixed Light business; time for study. Also Manager for a Branch, who could invest £50 in the business; large town, North. "Bona Fide," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, as early as possible, a young man who has some experience of Dispensing, and who wishes to improve himself; short hours, small salary, and comfortable home. Apply, Manager, Medical Dispensing Company, Hotel Street, Leicester.

A GOOD all-round man, with first class references, who is not afraid of work. Is able to manage in absence of principal, &c., who desires a permanency. will be liberally treated with. Address, in first instance, "Alpha," 197 Shirland Road, Paddington.

WANTED at once, Assistant, about 24, for Light Retail and Dispensing business, W.; personal application preferred, or enclose carte (to be returned), giving particulars, salary required. Apply, "Westbourne Pharmacy," 2 Fernhead Road, St. Peter's Park.

JUNIOR Assistant wanted (indoors) for good-class Dispensing and Retail. Applicants will please state age, height, experience, references, salary expected, and when disengaged, also enclose photo, which will be returned, to William Ramsden, Fallowfield, Manchester.

W. W. BROOM, M.P.S., Queen Street, Exeter, requires for April 27, a Junior Assistant, about 21, of gentlemanly appearance and address, must have been accustomed to first-class dispensing; enclose photo (to be returned), with full particulars, and salary required.

SHORTLY.—Steady, active indoor Assistant; about 23 to 27; able to Dispense, Prescribe some, and Extract Teeth; qualification not essential if experienced and conscientious; references exchanged; send photo; no reply in a week, declined. Healthy seaside home. Jackson, Chemist, Blackpool.

QUALIFIED Chemist's Assistant wanted for hill station in India; salary to commence Rs. 1,800, with free quarters, passage paid out and home; 3 years agreement. Address, stating age, and fullest particulars, to "Chemist," c/o Messrs. Wright, Layman & Umney, 50 Southwark Street, London, S.E.

QUALIFIED Dispenser under 25 required by Medical Man; must be neat and accurate Bookkeeper, able to interview patients and prescribe for simple case in doctor's absence; ample time for reading; £40 per annum; comfortable home; western suburb. Letters to "Medica," 23 Chesterton Road, North Kensington, W.

WANTED, Manager (married) for small select Retail; qualified and reliable; to reside on premises (unfurnished); must have recent lengthy, good reference; efficient Prescriber and Extractor; state age, height, what family, when disengaged, and salary required; if possible, personal application preferred. Harley & Co., 262 Mare Street, Hackney, London, N.E.

QUALIFIED Assistant wanted, for high-class Cash business; must be gentlemanly, active, industrious, and of good business habits; married preferred; if found suitable would be given management of branch; liberal terms to good man. Apply, stating age, qualification, experience, references, and send photo, to The Southern Drug Co. (Lim.), 182 High Street, Southampton.

TORQUAY.—Holloway's London Drug Stores.—An experienced gentlemanly Assistant, good appearance and address, in large high-class Dispensing and select Retail; easy hours; close 5 Wednesdays in summer; exceptional home; indoors; 4 kept; gentleman having no sympathy with modern business not entertained. Full particulars and photo to Mr. Holloway.

WANTED, by a high-class Drug House, two gentlemanly men of good address, with a thorough knowledge of the Wholesale Drug trade, as Representatives; Major qualification preferred. Applications, giving full particulars as to age, experience, connection, references, and salary required, to be sent to "Alpha," c/o Messrs. Flux, Son & Co, 3 East India Avenue, E.C.

SALOP INFIRMARY, SHREWSBURY.

APRIL 2, 1892.

WANTED, immediately, a qualified Dispenser; salary £100 a year without residence or any extras; one experienced in Hospital work preferred.

Application, stating age and experience, with qualifications and testimonials, to be sent before April 23, 1892, to the Secretary.

WALLACE BOYOE, *Secretary*.

Board Room, April 2, 1892.

SITUATIONS WANTED.

1s. for twelve words: 6d. for every six words beyond.

IMPROVER (20); good references. Thomas, c/o Mr. Jones, Chemist, Barry Dock.

JUNIOR (19); passed Prelim.; 4 years' experience. Mortimer, Rowharton, Taunton.

ASSISTANT; Wholesale or Retail; now at liberty. 6 G. Brig Street, Barrow-in-Furness.

JUNIOR (21); 6 years' experience; references; disengaged. Stow, Haverholm, Sleaford.

LOCUM, or Branch Manager; aged 25; Extractor. E. J. Stovell, 2 Horton Street, Lewisham, S.E.

MANAGER or Temporary; 36; qualified; married; experienced. "Spec," 1 Ladhroke Crescent, Redhill.

TEMPORARY Manager or Senior; qualified; good references. "Locum," Trinity Square, Llandudno.

LOCUM-TENENS (35); qualified; disengaged; moderate terms. 73 Shakespeare Road, South Hornsey.

ASSISTANT; middle of May; country preferred; good references; 7 years' experience. Lane, Baxter, Fordingbridge, Hants.

AS Manager or Senior; aged 39; married; outdoors; Minor; excellent references. "Chemist," 12 St. Mary's Road, Sheffield.

WHOLESALE.—Experienced Assistant seeks employment; Wet or Dry; first-class references. C. B., 122 Walworth Road, London.

WANTED, situation as Junior in good Mixed business, Dispensing and Agricultural; aged 20. H., c/o Mr. Round, Chemist, Southport.

ASSISTANT or Manager; Minor and Apothecaries' Hall; disengaged; good references. Full particulars, "Antipyrin," 4 Pinderfield Road, Wakefield.

AS Locum-Tenens; town or country; qualified; disengaged shortly. "Manager," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TRAVELLER, 16 years' experience, is desirous of indoor situation; warehouse or office; town or country. T. D., 89 Cadogan Terrace, Victoria Park, E.

ASSISTANT or Branch Manager; unqualified; outdoors; 25; 2½ years' with present employer; good reference. Brooke, c/o Maud, Chemist, Pontefract.

MANAGER; outdoors; 13 years' Continental and West-end experience; fluent French; Major qualification. X. Y. Z., 83 Vincent Square, Westminster.

ASSISTANT (22); good Extractor, Prescriber, and Dispenser; tall, gentlemanly appearance; thoroughly reliable; excellent references. "Laboratory," 51 Penny Street, Lancaster.

SITUATION as Branch Manager, in South or South-West of England; 14 years' experience; aged 30; good references; qualified; Prescriber; disengaged in three weeks. "Saccharin," 11 Queen Square, Wolverhampton.

IMPROVER, in a good-class, business employing one or more assistants; aged 24; good address and references; 2 years' experience; 3½ years dispenser to a surgeon; small salary; outdoors. Apply, "Statim," 9 Bishopston Lane, Stockton-on-Tees.

VICAR recommends a qualified man as Manager, Locum-Tenens, or Assistant; experienced, active, and energetic; well up in Dispensing Prescribing, general Retail, and the preparation of Proprietaries; knowledge of Minor Dentistry. Address, The Rev. F. S. Swindell, M.A., Vicar Eddington.

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Composed of Yarrow, Dandelion, Comfrey, & Horehound.
ENLARGEMENT OF SIZE.A Sixpenny Bottle makes EIGHT GALLONS of
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Full of Body and Flavour, with a Creamy Head like Bottled Ale, the most perfect substitute for Alcoholic Drinks ever discovered, for either Summer or Winter.

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Make Temperance Wines in a few minutes.

Ginger, Orange, Lemon, Raspberry, Black Currant, &c.

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CONFECTIONER,
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The Best in the World. 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

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One 6d. Tin is equal to 25 eggs. In 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

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Delicious Custards without Eggs. In Boxes, 2d., 6d., and 1s. each.

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The Peel has been cut as free from pith as possible, and every care taken in drying to preserve the colour and aroma.

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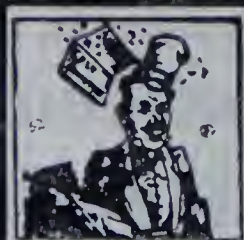
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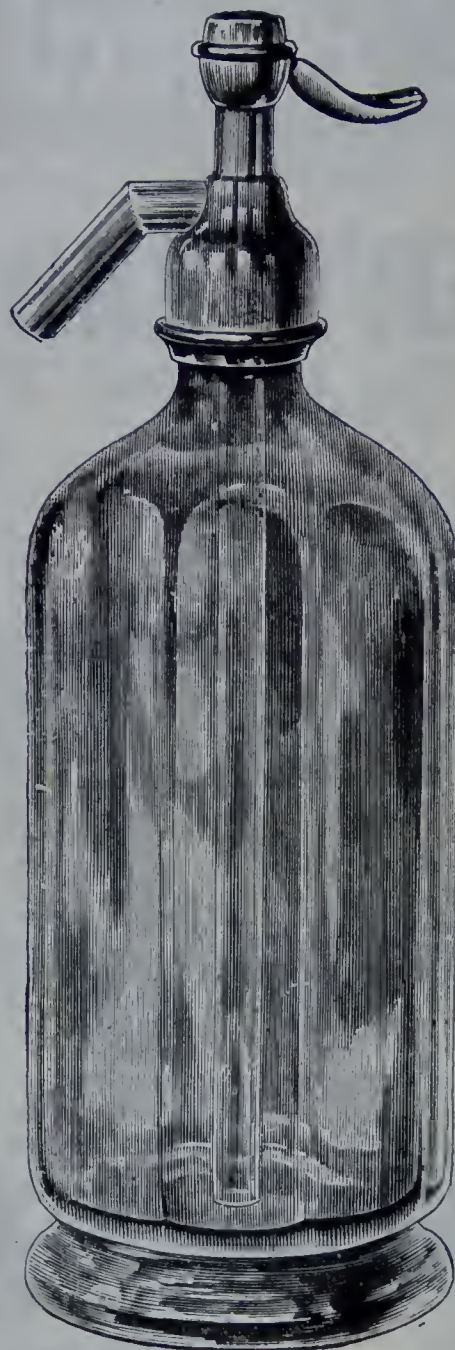
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OF
GREAT BRITAIN.

TELEGRAPHIC ADDRESS:

COLEMAN,
GEORGE'S, NORWICH.

St. George's, Middle St.
NORWICH,
December, 1887.

The Excise Authorities having created a difficulty as to the sale of Medicated Wine containing a certain percentage of alcohol, we obtained in January last, from the Inland Revenue Authorities, permission to sell our WINCARNIS,* or Liebig's Extract of Meat and Malt Wine, **WITH QUININE**, without a Wine Licence, and many Chemists not holding a Wine Licence have sold considerable quantities. In order further to meet the requirements of the trade, we have introduced a Liebig's Extract of Meat and Malt Wine, **NON-Alcoholic**, made from the juice of the Grape, Liebig's Extract of Meat, and Extract of Malt. This also can be **SOLD WITHOUT A WINE LICENCE**. Your orders will oblige either direct or through the Wholesale Houses.

Yours obediently,

COLEMAN & CO., LIMITED.

*W.B.--The Wine is sold in Bottles, 2/9 and 4/6 each.
Trade prices on application.*

P.S.—Where the Magistrate's Certificate is not held we are willing to pay the entire cost of a Retail Certificate (the holder of which can sell any kind of Wines) if an assorted order of 6 dozen is sent us of any of our preparations. List on application. Our WINCARNIS,* or Liebig's Extract of Meat and Malt Wine **WITHOUT QUININE** commands a very large sale, and is recommended by over two thousand medical men who have sent us testimonials in its favour.

SOLE MANUFACTURERS—

COLEMAN & CO., LIMITED,
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* WINCARNIS is a NEW NAME, registered to prevent fraudulent imitations.

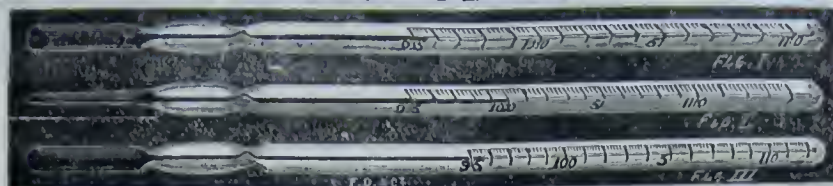
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Fig. 1.

Fig. 2.

Fig. 3.

Hospital Pattern, in German Silver Cases	21	per dozen
Standard do., Fig. 3	"	"	or Vulcanite	27	"
Lens Magnifying Front, Hospital Pattern, Fig. 1, in German Silver Cases or Vulcanite	...	...	...	...	...	...	...	36	"
Do., rapid action, by which readings can be taken in as short a time as 30 seconds, Fig. 2	...	...	...	...	...	...	...	48	"
Kew Certificates	...	...	...	...	...	...	...	12	doz. extra.

We beg to caution our clients against buying spurious imitations of our well-known goods.

**DARTON'S
SHOW CASES OF SPECTACLES.**

Chemists commencing the Spectacle business will find these Show Cases arranged with an assortment of Spectacles and Folders of all sights, to meet the requirements of purchasers. The quality and quantity may be varied to suit any class of trade at customer's wish. Case is of Solid Polished Mahogany, well made and finished, to stand any climate. A large Coloured Show Card is sent with each case, and instructions for testing sights, with table of Nos., and together with Sight Tester, £2 2s; do, with assortment of Folders and Test Types, £3 3s.; Large-sized Case, with more complete assortment, £6 6s; do, with assortment of Pebble Spectacles, £10 10s.; Large-sized do., £21.

The following Trade Lists now ready: "Spectacles and General Optics," "Meteorological Instruments," "Electric Balls Medical Batteries, &c.," mailed Free to any part of the World.

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Sent out in bottles bearing a label in white letters upon a green ground. We prepare also Double Strength Nepenthe, and Glycerine of Nepenthe (eight times the single strength) for hypodermic injection.

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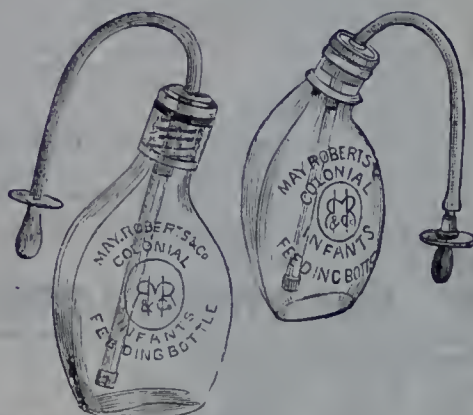
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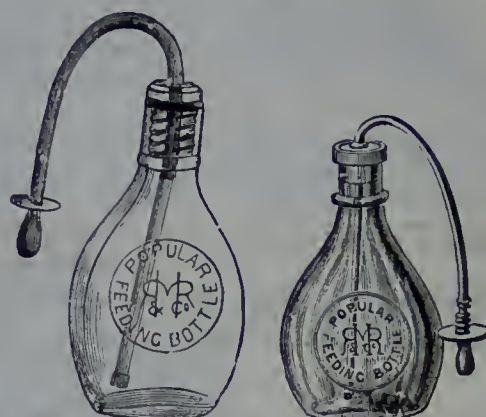
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SURGICAL

Ayrton and Saunders
Bailey, W. H., and Son
Barclay and Sons (Limited)

Cocking, J. T.
Harrison, T. H.
Haeelstine

Haywood, J. H.
Liverpool Patent Lint Co.
Lindsey & Sons

Maw, Son, & Thompson, S.
Powell & Barrett
Robinson and Sons

Quelch, H. C.
Schutze, F. and Co.
Sedox, Absorbents, and Anti-septics

Thompson, Walters, Hole and Co. (Limited)
Whitaker and Donisthorpe

Wood, Vincent

SYPHONS

Barnett and Foster
Brady and Hinchliffe (Ld.)
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Fordham, W. B., & Sons (Lim.)
Gerat, E., & Co.
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Woolley Jas., Sons and Co.
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HALL'S COCA WINE

A HIGH-CLASS MEDICATED WINE AT A REASONABLE PRICE

THE LATEST TESTIMONY TO THE EXCELLENCE OF
HALL'S COCA WINE.

"The Lancet," April 9th, 1892.

HALL'S COCA WINE (STEPHEN SMITH & Co., Bow, E.)

This is an excellent Wine, with an alcoholic strength equal to good port, possessing a similar flavour and bouquet, but associated with it also is the peculiar though pleasant aroma of the fresh Coca leaf. Ether when shaken with the Alkalised Wine yielded a residue on evaporation which with hydrochloric acid gave characteristic Crystals of Cocaine hydrochlorate; they were further identified by the numbing effect produced by the Crystals when rubbed on the tip of the tongue. Analysis gave the following data: Alcohol, 15 per cent. by weight, 18.50 per cent. by volume; total solid matter, 18.73 per cent. (sugar and coca principles); mineral matter, 0.33 per cent. The restorative and invigorating properties of the Coca leaf are now well known, and it may be very conveniently and palatably administered in the form of an agreeable Wine such as that under examination, a wineglass-ful of which is stated to contain one drachm of the soluble active ingredients of the leaves.

STEPHEN SMITH & Co., BOW, LONDON.

THE "STIPENDUM" STOPPER CO., LIM.

47 LAMB'S CONDUIT STREET, LONDON, W.C.,

Manufacture the following Specialities—

- "STIPENDUM" CORK STOPPERS, in all sizes.
- "STIPENDUM" CORK-LINED CAPS, for Pomade Bottles.
- "STIPENDUM" SCREW CAPS, for Pomade Bottles.
- "STIPENDUM" OPENERS, for Stoppered Aërated Water Bottles.

"STIPENDUM" GREASE-PROOF COVERED POTS

IN TERRA COTTA, CHOCOLATE, AND BLACK.

The Grease-Proof Covered Pots have perfectly fitting lids, are practically unbreakable, and the only article really answering the purpose intended.

The following Analytical Report should be noted by the trade:—

London, January 5, 1891.

"We have examined the two covered pots marked November 21, 1890, one containing strong nitrate of mercury ointment, and the other iodine ointment, the object being to discover—(1) Whether the ingredients of which the pots are composed have in any way affected the ointments; (2) Whether the pots have been deteriorated by the action of the ointments.



We hereby certify that no trace of any of the ingredients of the pot can be discovered in either of the ointments, and further that the pots themselves were found not to have been acted on at all; and we further consider 'Stipendum' admirably adapted for such pharmaceutical preparations.

Signed, C. T. KINGZETT, F.I.C., F.C.S.

(Ex Vice-President Society of Public Analysts)

R. H. HARLAND, F.I.C. F.C.S.

(Public Analysts)."

To be had of all Druggists' Sundriesmen.

Wholesale only of the Company.

BOXES

ROUND, OVAL, SQUARE, or FOLDING, for the

DRUG, DRYSALTERY, AND CONFECTIONERY TRADES.

LABELS, WHEN PRINTED TO OUR INSTRUCTIONS, WE PUT ON PILL AND OTHER BOXES FREE OF CHARGE.

BOXES AND CASES FOR

Baking Powder, Black Lead, Bottles, Camphor Ball, Capsules, Castor Oil, Cough Lozenges, Dispensing Powder, Eye Ointment, Fancy Boxes, Fuller's Earth, Folding Boxes, Glass Top Outers, Homœopathic Bottles, Insect Powders, Ink Cases, Jewellery, Lozenge, Lip Salve, Magnesia, Metal Paste, Marking Ink, Nipple Shields, Night Lights, Parcel Post, Pastilles, Pills, Potash Tablets, Plasters, Salt Lemon, Seidlitz Powder, Starch Gloss, Soaps, Soda Powder, Syringes, Tapers, Tooth Powder, Violet Powder, &c.

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And 55 FANN STREET, ALDERSGATE STREET, LONDON.

1ST CLASS PRIZE EXCELLENCE IN DESIGN

MANUFACTURER OF A SUPERIOR KIND OF FITTINGS FOR SHOPS SHOW ROOMS AND OFFICES

BOWLING & GOVIER.

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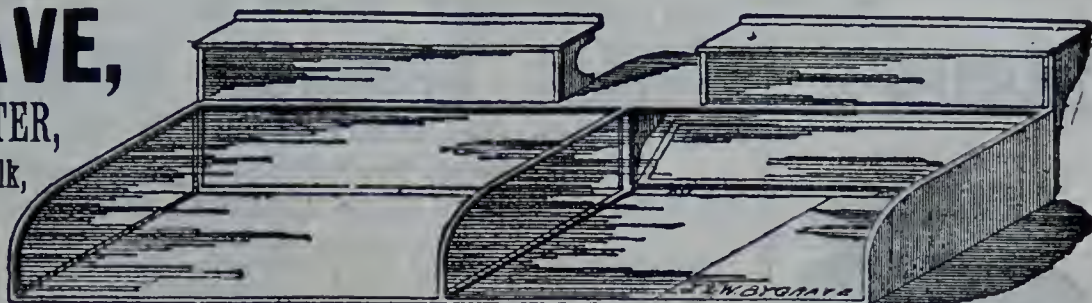
BYGRAVE,

SHOP FITTER,

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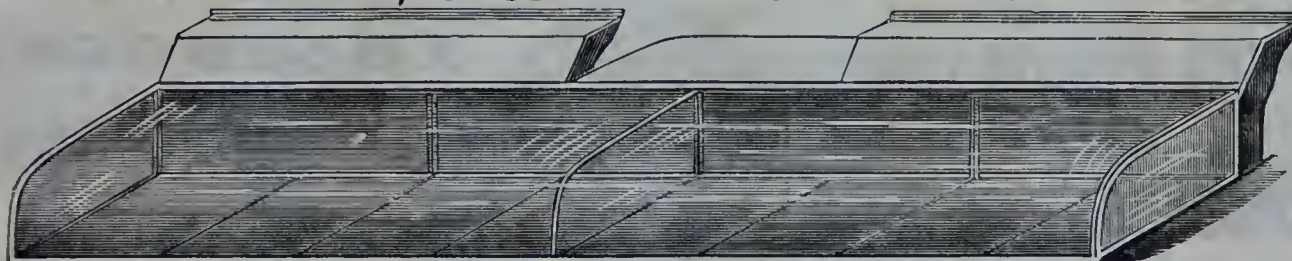
CITY ROAD,

LONDON, N.



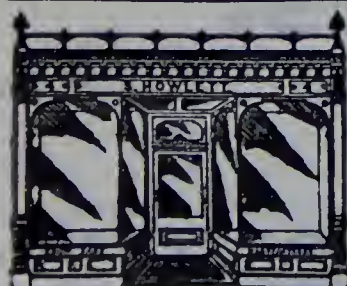
Bent-top plate-glass Counter Showcase, in French polished mahogany, or ebonized, with two upright mirror plate-glass fronted shelves, and table in centre for serving over, and mahogany falls at back lined with mirror plate glass, inside fitted with crimson velvet trays—if 5 ft. long, 18 in. wide, 8 in. high (total height 13 in.), £5 10s.; 5 per cent. off for cash.

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ELKANAH NATALI, SHOP FITTER & GLASS CASE MAKER.

Mahogany and Plate-glass Counter Case, sloping and flat shelf at back, 12 inches high to top of shelf, fitted inside with velvet-lined trays and silvered glass back. 5 feet long, £5; 6 feet long, £5 10s.; 8 feet long, £7.

242 OLD STREET (12 doors from City Road). Works: **HENSON STREET.**
ESTABLISHED 20 YEARS.



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MEDICAL AND
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EXPORT ORDERS CAREFULLY PACKED AND SHIPPED.



SHOPS FITTED by Contract, in Town or Country, with every requisite, on the most improved principles, and at lowest prices.

NUMEROUS REFERENCES may be obtained of Leading Chemists in all parts of the Kingdom.



A LARGE STOCK of New and Second-hand Fittings and Cases to be sold very CHEAP.

CABINET FITTER to the Pharmaceutical Society of Great Britain.

PLANS and ESTIMATES SUPPLIED.

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MAWSON'S WATER FILTERS

Are the most reliable and the most practicable Filters in the market of the world, and this is the very time to renew your stock. Write for clean Labels, Circulars, and Show Cards. May be obtained from nearly all Druggists' Sundry Houses.

SOLE MANUFACTURERS—

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NEWCASTLE-ON-TYNE.

Monthly, 1d. From Newsagents, yearly, 1s. 6d. post free.

ABOLISH THE MEDICINE STAMP.

See the May (15th) number of the HEALTH MESSENGER, which will be suitable for distribution to good class Customers, Members of Parliament, &c.

Special Terms for Quantities may be had on application to
MAWSON, SWAN & WEDDELL,
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MAW, SON & THOMPSON, and W. TOOGOOD
supply 13 for Ninepence.

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BARBER'S ORIGINAL CRIMSON MARKING INK,

WHICH IS CHANGED BY HEAT TO A JET BLACK.

Put up for Retail Sale in 6d., 1s., 2s., 2s. 6d., and 5s. Bottles.

Also Barber's Concentrated Liquid COCHINEAL, for Colouring Jellies, Custards, &c.

Put up in 6d. and 1s. Bottles.

Also Barber's Artificial Ivory for Filling Decayed Teeth, 1/- per packet.

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Can be obtained through any of the Wholesale Firms in Great Britain, or from FELTON, GRIMWADE & CO. Melbourne; ELLIOT BROS., Sydney and Brisbane; KEMPTHORNE, PROSSER & CO., Dunedin and Auckland; FELTON, GRIMWADE & CO., Wellington; or direct from the Manufacturers—G. BARBER, & CO., Club Moor, Liverpool, England.



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On hand a Large and Varied Stock of

BLEACHED AND UNBLEACHED SPONGES.

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LOOPHAS,

Good Quality and Large Size. 2s. 6d., 4s., and 6s. per doz., less 10 per cent. and 5 per cent. one month.

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For full description of Flesh Gloves of all kinds see General Catalogue, sent free upon receipt of Business Card.

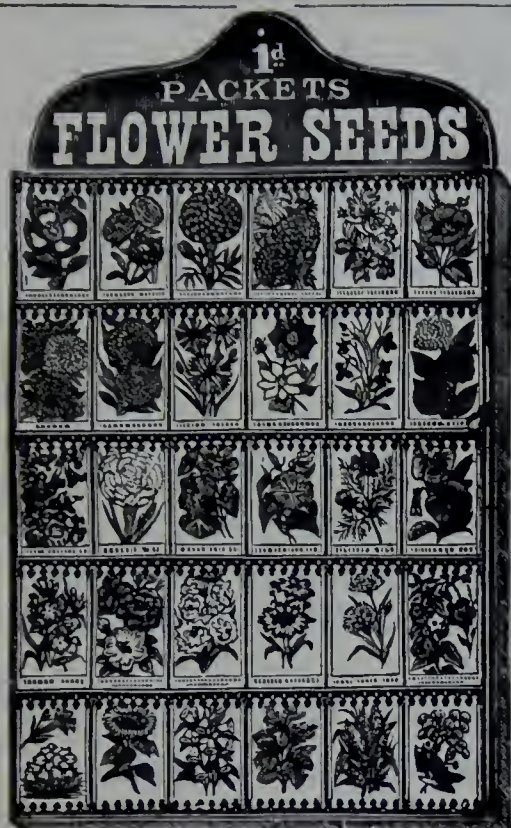
A GOOD LINE! Breast Exhausters for self use, with Black Tubing, complete in Box, 4/9 per doz., subject. Sulphur Tablets, 3d. Packets, 1/6 per doz.; 6d. Packets, 3/- doz.; 1/- Packets, 5/6 doz.; 6d. Tins, 3/9 doz.; 1/- Tins, 7/0 doz.; per lb. 1/6, 7 lbs. for 9/6, less 10 per cent. and 5 per cent. 1 month.

A LARGE SHOW BOWL GIVEN FREE WITH 28 LBS. OF ABOVE.

Sulphur Lozenges (Dr. Garrod's formula) per lb. 1/6, 7 lbs. for 9/6. Bottles Free.

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100 PER CENT. PROFIT !



THE "WINGED LION" BRAND SEEDS IN PACKETS.

Flower Seeds in	1d. packets	-	6/-	per gross
Vegetable	1d. "	-	6/-	"
Bird	1d. "	-	8/6	"
"	2d. "	-	15/6	"
"	4d. "	-	26/-	"
Lawn Grass	3d. "	-	2/3	per doz.
"	6d. "	-	4/-	"
"	1/-	-	7/6	"

The "Winged Lion" Packets are most artistically designed, and printed in colours. Full cultural directions are given with each packet.

THE "UNIVERSAL" PLANT FOOD,

For producing Prize Plants and Blooms.

INVALUABLE FOR WINDOW AND COTTAGE GARDENING.

This Food is a compound of Chemical constituents absolutely necessary for the healthy growth of plant life. Poor soils are permanently enriched by its application, and gardens long neglected and unmanured produce vigorous flowers and vegetables when the Food is used as a top dressing. Will be found invaluable by growers of Roses, Crysanthemums, Dahlias, &c., also of choice Vegetables, Cucumbers, &c.

Price in 2d. Packets (packed on $\frac{1}{4}$ -gross Cards), 12/- per gross. 6d. Tins, 4/- per doz.

SEND POST-CARD FOR COMPLETE LIST AND SAMPLES.

POTTER & CLARKE,

WHOLESALE BOTANIC DRUGGISTS AND SEED MERCHANTS,

5, 6, & 7 RAVEN ROW, ARTILLERY LANE, LONDON, E.

GLYCERINUM PEPTICUM.

(FAIRCHILD.)

This Glycerine extract of the peptic ferment possesses every requisite of a concentrated solution of pepsin. It is highly active, uniform and stable, devoid of objectionable odour or taste, is freely miscible without precipitation or cloudiness with all proper menstrua or media, is notably free from all disagreeable qualities and characteristics of peptone solutions. It contains no alcohol or antiseptics other than glycerine of the purest quality.

Glycerine possesses peculiar value as a vehicle for pepsin, it being the only substance known which is at once both a powerful solvent and a preservative of the ferments of the gastric juice. For this reason, glycerine extracts of pepsin have been recommended and employed in experimental work by physiological chemists.

The properties and value of pepsin are so well known that the advantages of a pure glycerine extract of this ferment will be well understood by both pharmacists and physicians.

Glycerinum Pepticum (Fairchild) possesses every desiderata, both from a pharmaceutical and medicinal standpoint.

Twelve minims will be found equivalent in activity to one grain of the best pure pepsin in a dry form that is to be found in the market. It will be found, upon comparative test, of much greater strength than any fluid preparation of pepsin known.

It mixes freely, without precipitation or cloudiness, with all clear liquids with which pepsin is or should be employed.

Pharmacists will appreciate the facility with which the usual fluid preparations of pepsin may, by means of the Glycerine Pepticum, be quickly and economically prepared, as there is no loss by filtration. It is agreeable to take, and may be mixed with pure water, wine, or any of the usual vehicles.

Glycerinum Pepticum supplied to the Trade in 4-oz. bottles, at 22/- per doz.
Retail, 2/6 each.

BURROUGHS, WELLCOME & Co., Snow Hill Buildings, LONDON, E.C.

FRIENDLY TALKS WITH THE TRADE.

TIME SAVING MEDICINES.

"TABLOIDS" of Compressed Drugs afford a means for *economising time, trouble, and expense* in being easily prescribed and dispensed, with the greatest degree of accuracy in dosage obtainable.

They can be dispensed by chemists at a cheaper rate than either pills or powders because they cost less, when the length of time occupied in dispensing the latter is taken into consideration.

The tired general medical practitioner after a hard day's work at visiting considers them a boon for dispensing, since they facilitate immensely the quick despatch of the medicines and enable him to secure a little rest from his arduous duties. "Tabloids" are supplied in neat little vinaigrette bottles, suitable for dispensing, and in bottles of 100, from which they may be dispensed in any quantity desired.

The "Tabloids" are prepared with the finest drugs obtainable only, and contain each exactly the amount indicated on the label.

The "Tabloids" are especially acceptable to fastidious patients, for it has been frequently observed that many who are unable to swallow a pill can take a "Tabloid" with the greatest facility.

"Tabloids" of insoluble drugs are prepared so that they fall to a fine powder in the stomach when swallowed entire, and thus render absorption of the remedy prompt and certain.

"Tabloids" of Cascara Sagrada, Quinine, Pil. Rhei Co., &c., are supplied, when specially ordered, coated with pure white sugar. These coated "Tabloids" are much more readily soluble than pills, and are more easily swallowed, reliable, and elegant in appearance.

In the following list those "Tabloids" coated with sugar are indicated by an asterisk:—

LIST OF "TABLOIDS" PREPARED BY BURROUGHS, WELLCOME & CO.

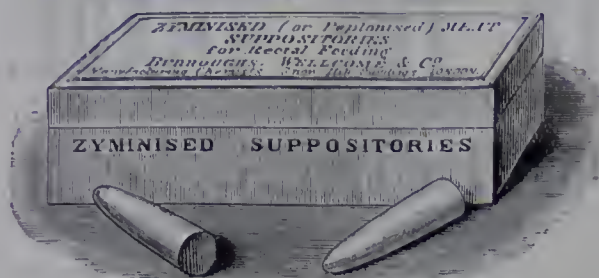
Aconite Tinct., 1 min.	Chloralamid., 5 gr.	Lithia Carbonate, 2 gr.	Rhubarb and Soda, 5 gr. (<i>Rhet</i> , 3
Aloin, 1-10 gr.	Chloral Hydrate, 5 and 10 gr.	Manganese Dioxide, 2 gr.	<i>Soda Bicarb.</i> , 2; <i>Zingiber</i> , ½
Ammon. Bromide, 5 and 10 gr.	Cocaine Mur., 1 gr. [(Voice)]	Morphia Sulph., 1-1½, 1-20, and	<i>parts</i> .)
Ammon. Chloride, 3, 5, and 10 gr.	Cocaine with Potash and Borax	½ gr.	Saccharin, ½ gr.
Ammon. Chloride with Borax.	Crete Aromat. cum Opio Pulv., 5 gr.	Naso-pharyngeal (<i>Sodium Chlorid.</i> ,	Salicin, 5 gr.
Antacid (<i>Soda Bicarb.</i> , <i>Potash Bi-</i>	(Aromatic Confection with	<i>Borax</i> , <i>Boric Acid</i> , <i>Benzoe Acids</i> ,	Salol, 5 gr.
<i>carb.</i> , <i>Magnes. Carb.</i> , aa 2 gr.;	Dialysed Iron, 10 min. [Opium.]	<i>Menthol</i> , <i>Thymol</i> , <i>Ol. Gaultheria</i> ,	Santonin, ½ gr.
<i>Soda Chlorid.</i> , 3 gr.)	Digitalis Tinct., 1 min.	<i>Cocaine Mur.</i>)	Soda Bicarbonate, 5 gr.
*Anti-Constipation (<i>Aloin</i> , 1-5 gr.,	Digitalin, 1-100 gr.	Nitro-glycerine, 1-100 gr. (see also	Soda-Mint, or Neutralising "Tab-
<i>Belladonna Ext.</i> , ½ gr.; <i>Strich.</i> ,	Diuretin- "Knoll," 5 gr.	Trinitrine).	loids" (<i>Soda Bicarb.</i> , 4 gr.; <i>Am-</i>
1-60 gr.; <i>Ipecac.</i> , 1-16 gr.)	Dover Powder, ½ and 5 gr.	Nux Vomica Tinct., 1 and 3 min.	<i>mon. Carb.</i> , ½ gr.; <i>Ol. Menth. Pip.</i> ,
Antifebrin, 2 gr.	Euonymin Resin, ½ gr.	Opium Tinct. (<i>Laudanum</i>), 2, 5, and	½ gr.)
Antimony Tartrate, 1-50 gr.	Exalgin, 2 gr.	10 mins.	Soda Salicylate, 3 and 5 gr.
Antipyrin, 5 gr.	Ferrum Redactum, 2 gr.	Papain, 2 gr. (<i>Dr. Finkler & Co.</i>)	Strophanthus (2 minims of Tinct.
Apomorphine Mur., 1-50 gr.	Gregory Powder (see <i>Rhubarb</i>	Pepsin (<i>Fairchild</i>).	in each).
Arsenious Acid, 1-100 and 1-50 gr.	Comp. Pulv.)	Pepsin Saccharated, 5 gr.	Sulphur Comp. (<i>Sulph. Precip.</i> ,
Atropine Sulph., 1-100 gr.	Gnaiacum and Sulphur.	Peptonic (<i>Pepsin</i> , <i>Zymine</i> , <i>Lacto-</i>	5 gr.; <i>Potass. Bicar.</i> , 1 gr.)
Belladonna Tinct., 1, 5, and 15 mins.	Hydrarg. cum Creta, ½, ½, and 1 gr.	<i>phosph. Lime</i> , p. aq.)	Tannin, 2½ gr.
Bismuth Subnitrate, 5 and 10 gr.	Hydrarg. Iod. Rub., 1-20 gr.	Phenacetin, 5 gr.	Test Tabloids (<i>Fehling's</i>)
Blue Pill, 3 gr.	Hydrarg. Iod. Vir., ½ gr.	Pilocarpin Mur., 1-20 gr.	Thirst (Effervescent).
Borax, 5 gr.	Hydrarg. Perchlor., 1-100 gr.	Podophyllin Resin, ½ gr.	Tonic Comp. (<i>Iron Pyrophos.</i> , 2 gr.;
Caffeine Citrate, 2 gr.	Hydrarg. Subchlor. (<i>Calomel</i>), 1-10,	Potass Bicarh., 5 gr.	<i>Quinine Bisulph.</i> , 1 gr.; <i>Strychnine</i>
*Calcium Sulphide, 1-10 gr.	½ and 1 gr.	Potass Bromide, 5 and 10 gr.	<i>Sulph.</i> , 1-100 gr.) (and 1-50 gr.
Calomel, 1-10, ½, and 1 gr.	*Hydrastia Comp. (<i>Hydrastia Mur.</i> ,	Potass Chlorate, 5 gr.	Trinitrine (<i>Nitro-glycerine</i>), 1-100
Camph. Co. Tinct., 5 and 15 mins.	½ gr.; <i>Ergotin</i> , ½ gr.; <i>Cannabin</i>	Potass Iodide, 5 gr.	Trinitrine and Amyl Nitrite.
Cannab. Ind. Tinct., 3 minims.	<i>Tannate</i> , ½ gr.) [Powder]	Potass Nit. (<i>Sal Prunella</i>), 5 gr.	Trinitrine Comp. (<i>Trinitrine</i> , 1-100
Capsicum Tinct., 1 min.	Ipecac. and Opium, 5 gr. (<i>Dover</i>	Potass Permanganate, 1 and 2 gr.	gr.; <i>Nitrite of Amyl</i> , ½ gr.; <i>Cap-</i>
*Cascara Sagrada Ext., 2 gr.	lpecac Powder, 1-10 and 5 gr.	*Quinine (soluble), ½, 1, 2, 3, and	<i>sicum</i> , 1-50 gr.; <i>Menthol</i> , 1-50 gr.)
*Cascara Comp. (<i>Cascara Dry Ext.</i> ,	Iron and Arsenic Comp. (<i>Quinine</i>	5 gr.	Urethane, 5 gr.
1 gr.; <i>Euonymin</i> , ½ gr.; <i>Nux</i>	<i>Bisulph.</i> , 1 gr.; <i>Iron Hypophosp.</i> ,	Reduced Iron, 2 gr.	Voice (<i>Potash</i> , <i>Borax</i> , and <i>Cocaine</i>).
<i>Vomica Ext.</i> , 1-16 gr.; <i>Hyoscyam</i>	2 gr.; <i>Arsenic</i> , <i>Strychnine Sulph.</i> ,	Rhubarb, 3 gr.	Warburg Tincture, 30 min. in each.
<i>mus Dry Ext.</i> , 1-3 gr.)	au 1-50 gr.)	*Rhubarb Comp. (Pill), 3 gr. (<i>Rhet</i>	Zinc Sulphate, 1 gr.
*Cathartic Comp., U. S. P. (<i>Fat.</i>	Iron and Quinine Cit., 3 gr.	<i>Pulv.</i> 1½; <i>Aloe Soc. Pulv.</i> 1;	Zinc Sulpho-carbolyte, 2 gr.
<i>Coloc. Co. Pulv.</i> , 1-13 gr.; <i>Ext.</i>	*Laxative Vegetable (<i>Res. Podoph.</i>	<i>Saponis Pulv.</i> , 5-8; <i>Myrrhoe Pulv.</i> ,	Zingib. Fort. Tinct., 5 min.
<i>Jalapae Pulv.</i> , 1 gr.; <i>Hyd. Sub-</i>	<i>Ext. Hyosc.</i> , <i>Ext. Tarax.</i> , aa	5-8 parts; <i>Ol. Menth. Pip.</i>)	Zymine (<i>Pancreatin</i>).
<i>chlor.</i> , 1 gr.; <i>Cumbogia Pulv.</i> , ½ gr.;	1-4 gr.; <i>Ext. Coloc. Pulv.</i> , 1 gr.;	Rhubarb Comp. Pulv. (<i>Gregory</i>	Zymine Comp. "Tabloids" (<i>Zymine</i> ,
<i>Menthol</i> , 1-8 gr.)	<i>Jalapae Pulv.</i> , <i>Res. Lepand.</i> , aa	Powder), 5 gr.	2 gr.; <i>Bismuth. Subnit.</i> , 2 gr.;
Charcoal, 5 gr.	1-2 gr. <i>Menthol</i> .)		<i>Powd. Ipecac.</i> , 1-10 gr.)

A large variety of Pocket and Carriage Medicine Cases are always in stock, suitable for carrying a complete supply of medicines and appliances ready for any emergency.

Surgeon PARKE (Medical Officer of H. M. Stanley's Expedition through Darkest Africa) says:—"I sit in my chair and dole out 'Tabloids' (Burroughs, Wellcome & Co.), which are superior to any form of medicine that I have tried, not only for *efficiency and constancy of strength*—as I have repeatedly noticed—but also for extreme convenience of transport and rapid dispensing. One medical officer could do the work of two."



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ZYMINISED MEAT OR MILK SUPPOSITORIES.

Physiologists are unanimous in condemning GELATINE as a basis for peptone suppositories, for this mixture is one of the best culture-media for BACTERIA, therefore we have prepared these suppositories with pure peptones and COCOA BUTTER; they are easily introduced, perfectly absorbed, never cause intolerance, and ARE PERFECTLY STERILE.

The ZYMINISED MEAT SUPPOSITORIES were thoroughly tested clinically by Dr. Barlow in cases after surgical operations, gastric ulcer, or when for any reason it was found desirable to rest the stomach; in every case the suppository was perfectly absorbed, and afforded excellent results. Mr. Bowreman Jessett (*The Lancet*,

October 24th, 1891) records the successful operation of combined pylorotomy and gastro-enterostomy when the patient was fed with *zyminised meat suppositories*.

Zyminised Meat and Milk Suppositories are supplied to the Trade in boxes of 1 dozen, at 22s. per dozen.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.

TRADE NOTICE.

W. V. WRIGHT & CO., Manufacturers of COAL TAR SOAP, "LIQUOR CARBONIS DETERGENS," beg to intimate that they have **DISPOSED OF THEIR BUSINESS**, together with all Trade Marks and Rights of Manufacture, as and from January 1, 1892, to

WRIGHT, LAYMAN & UMNEY,
WHOLESALE DRUGGISTS AND MANUFACTURING CHEMISTS.
48 & 50 SOUTHWARK STREET, LONDON,

Who will discharge all liabilities and receive all accounts at due date.

SOUTHWARK, LONDON.

“Johannis”

KING OF TABLE WATERS.
CHARGED ENTIRELY WITH NATURAL GAS.
PREVENTS GOUT, RHEUMATISM, AND INDIGESTION.

The finest tribute ever accorded to sterling merit is contained in the *Lancet* of August 8th, 1891, pages 307-8, which embodies the "Report of the Lancet Special Commission on Natural Mineral Waters." "JOHANNIS"—the subject of the Report—being selected from amongst the Natural Mineral Waters of the world as alone worthy of this unprecedented distinction.

This Report, which contains a number of delicate and interesting analyses, a full description of the Spring, method of bottling, &c., at Zollhaus, Germany, together with numerous press notices, public and private testimonials, &c., will be sent to any part of the world, post free, on receipt of address.

50 Quarts, 22/-; 100 Pints, 35/-; 50 Pints, 18/6. Liberal Trade Terms.

Postal Address—**JOHANNIS SPRINGS, LIMITED, 28a WHARF RD., CITY RD., LONDON, N.**

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ESTABLISHED 1858.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICES:

MELBOURNE AND SYDNEY, AUSTRALASIA.

Published every Saturday.

Subscription 10s. per year, payable in advance; dating from the commencement of any month.

Supplied only to persons connected with the Trade.

Post free to every country in the world. Single copies 4d. each.

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Supplied regularly to every member of the following Societies, who have adopted THE CHEMIST AND DRUGGIST as their official organ.

The Pharmaceutical Society of Ireland.

The Pharmaceutical Association of New Zealand.

The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

Tasmanian Pharmaceutical Society.

Otago Pharmaceutical Association.

South African Pharmaceutical Association.

The Central Association of New Zealand.

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Summary.

WE give a description and plan of Messrs. Corhyn, Stacey & Co.'s New Bond Street pharmacy.

THE Preliminary Examination was held throughout Great Britain on Tuesday, and we print the questions.

THERE is very little doing in Mincing Lane this week, consequently our Trade Report is shorter than usual.

A CHEMIST at Sunderland and a chemist's apprentice at Birmingham figure as prisoners in Post Office prosecutions.

THE completion of the report of the proceedings of the Irish Pharmaceutical Society is given in this week's issue.

A GROCER has been fined 5*l.* in Ireland for selling half a pint of ether, which is a poison in Ireland, and can only be sold by chemists.

THE late Sequah representative, Hedley, who was prosecuted in South Wales on a charge of embezzlement, has established his innocence, and has been discharged.

A CASE tried in the Newcastle (Staffs) County Court shows that an apprentice to a managing director of a limited company has no claim on the company in case of non-fulfilment of the contract.

THE Executive of the North British Branch met in Edinburgh on Wednesday, and agreed to ask the Pharmaceutical Council to address Somerset House on the methylated spirit question.

THE "Corner for Students" tournament maintains its interest. Four months of the six have been reported on, and there are a dozen competitors close enough together to make the chance of any one of them satisfactory.

WE print an interesting and practical paper by Mr. F. W. Warrick on the various refractometers which are in use, and their applications in pharmacy, together with the results of observations on essential oils by the author.

DR. LEES, of Glasgow, the one defendant in the nine Pharmacy Act cases of last week who was not fined, complains in a letter this week of the reprimand of the Sheriff, seeing that at least one member of the Pharmaceutical Council has been charged with doing what it was only alleged that Dr. Lees had been doing. Our Glasgow correspondent sends us the cream of local opinion on the prosecutions.

Next Week.

WEDNESDAY, April 20.—*Royal Microscopical Society*, 20, Hanover Square, W., at 8. "On the Use of the Camera Lucida in Drawing Bacteria," by Dr. E. Giltay; "Foraminifera of the Gault of Folkestone," by Mr. F. Chapman; "On some Deep-sea Deposits Collected during the Voyage of H.M.S. *Penguin*, 1891," by Surgeon P. W. Bassett-Smith; "Simple Photomicrographic Apparatus," by Mr. W. N. Osmond.

THURSDAY, April 21.—*Chemists' Assistants' Association*, 103 Great Russell Street, W.C., at 9. Answers to queries.

THURSDAY, April 21.—*Chemical Society*, Burlington House, W., at 8.

AT THE COUNTER.

"EAST YORKS" extracts the following gems from one recipe:—

4 oz. Splima city Ointment
8 drs. Gullard Exerats.

"WILL you please tell the hearer the smallest quantity of stuff you sell to make the eyes sparkle and the name of it and how to use it?" The chemist who received this order met it with a sixpenny bottle of lotion specially prepared.

MR. WM. ADAMS, Birmingham, sends the savings of a few months. Most of them have appeared before. "Epukecku-anna wine"; "feamail pills"; "ba carbilo of potash"; "Scrntchnale," and "Castor oil bladders" are representatives of this parcel.

MR. ALEX. CHISHOLM, Sheffield, sends us a large packet of originals. We select the following:—"Hog's alecasaid"; "1 Box Sitlegs"; "2 Win of Irne"; "Crcamatarta 1½ tlrky-rubbarb 1*l.*"; "1*l.* furnish cream"; "½ of oz. of Asadate Potash"; "Ivy Pikey"; "hicapica"; "Hioropycro"; "Irapiko"; "Ikeypike"; "Colver oil"; "1*l.* of best Majeniza"; "tincture of ardine for full-necks"; "1 oz. Liceridge powder"; "please put a mouth-bit on this tube."



CONDUCTED BY RICHARD J. MOSS, F.C.S., F.I.C.

SPECIAL PRIZE.

THE Proprietors of THE CHEMIST AND DRUGGIST offer a Special Prize, consisting of either Mendeleeff's "Principles of Chemistry" or Fresenius's "Chemical Analysis, Qualitative and Quantitative," to be awarded to the student who obtains the largest number of marks in the Corner for Students during the first six months of the year 1892.

QUALITATIVE ANALYSIS.

A mixture of three salts will again form the subject of the exercise in qualitative analysis. It is to be submitted to a thorough systematic examination; its constituents are to be detected, and all other substances proved absent.

Students' applications for portions of the mixture will be received up to Wednesday, April 20, and the samples will be forwarded immediately.

Students' reports will be received up to Saturday, April 30. Each report should contain a concise account of the work done, and should include a list of the constituents detected; in this list accidental impurities should be distinguished from the principal constituents of the mixture.

REPORTS.

The mixture of salts issued for analysis last month consisted of 2 parts of sodium chloride, 1 part of potassium iodide, and 1 part of ammonium bromide. The calculated composition of this mixture is:—

K	5.87
Na	19.68
NH ₄	4.59
I	19.13
Br	20.41
Cl	30.34
	<hr/>
	100.00

The mixture contained notable traces of calcium, and of the sulphuric radicle.

Eighty-six packets of the powder were distributed for analysis, and sixty-seven reports were received. The failures in the detection of the several constituents were as follows:—Bromine, 24; chlorine, 11; potassium, 8; sodium, 2; iodine, 2; ammonium, 0. Comparatively few students detected the impurities; in several cases the trace of calcium was mistaken for magnesium.

The detection of bromine in the presence of iodine and chlorine presents no serious difficulty. One simple method of procedure is to liberate the iodine by some reagent which does not liberate bromine from its compounds; nitrous acid serves this purpose very well. If to a cold aqueous solution of a bromide and iodide some carbon bisulphide is added, and then a solution of sodium nitrite acidulated with sulphuric acid, the iodine is liberated, and on shaking the liquid the free iodine is dissolved by the carbon bisulphide, with the well-known characteristic purple colour. It is easy to ascertain when all the iodine has been separated, by pouring off the aqueous solution and adding fresh carbon bi-

sulphide; if the latter is uncoloured or but slightly coloured on the further addition of nitrous acid, the iodine is all liberated. Chlorine water is then added, and if a bromide is present free bromine is now liberated, and it also is dissolved by carbon bisulphide, but with a colour totally different from the iodine solution. It is only necessary to perform this experiment in order to appreciate its value as a qualitative test. Chlorine water is not always available, and it is troublesome to prepare. A small crystal of potassium chlorate warmed in a test-tube with a few drops of hydrochloric acid gives, on the addition of water, a solution which serves the purpose of chlorine water. Instead of using nitrous acid to liberate the iodine, chlorine only may be used, as no bromine is liberated until all the iodine has first been set free.

By cautiously adding silver nitrate solution to the solution of the powder acidulated with nitric acid, it was observed that at first the precipitate formed was yellow, and that later on each fresh addition of the reagent gave a white precipitate. This suggested a chloride; and on treating the combined precipitates with a dilute solution of ammonium sesquicarbonate, filtering, and adding nitric acid to the filtrate, a pure white precipitate of silver chloride was obtained, in which chlorine could be detected by heating with manganese binoxide and sulphuric acid.

PRIZES.

The First Prize for the best analysis has been awarded to ARTHUR E. LEIGHTON, 20 Wightman Road, Harringay, N.

The Second Prize has been awarded to J. ROSE, 4 Hall Street, Gorton, near Manchester.

Marks Awarded for Analyses.—

A. E. Leighton (1st prize) ..	100	H. McL. R.	80
J. Rose (2nd prize)	99	Perseverance	80
Pyroxylin	93	Victory	79
Leo	97	Nulli Secundum	79
Verax	97	Haslar	78
H. Bowden	96	S. O. H.	78
Pepsine	96	Ornum	78
Moyhitt	95	J. Ashworth	77
W. J. Brewer	95	Danwer	76
A. Blowpipe	95	Nota Bene	76
Zirconium	95	A. Lander	76
Pyrrhus	95	Tempus	75
J. A. Hare	95	Elixir (A. E. C.)	75
Cogito	95	Venditor	75
W. R. H.	95	C. N. A.	75
Spes	95	First trial	74
W. Roberts	94	W. Maskew	73
Atom	93	Bynol	73
C. C. D. D.	93	A. Thorpe	72
Experientia	92	Elixir (A. R.)	71
W. Hood	92	C. M. H.	70
Pencedaum	91	Vin de coca	70
Aluminium Silicate	91	L. F. M.	70
Ozone	91	L. K.	69
Nena	90	S. G. B.	68
M. F. C. S.	90	Agricolæ	67
A. B.	93	H. F.	65
J. Bircham	90	Acidulous	60
Vigovnia	90	Fred Gee	60
Tyro	89	Labor	60
C. E. Ashby	89	H. G. H.	58
Vertolac	89	J. Daniel, jun.	57
Azalea	88	Sarsæ	50
Epsilon	88		

TO CORRESPONDENTS.

Prizes.—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half a guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

Note.—All communications should include the names and addresses of the writers.

A. E. LEIGHTON.—The test you used for nitric acid was quite applicable in this case. Without knowing the exact conditions of the experiment it would be difficult to say what the cause of the green coloration of the silver coin was, but free iodine gives a result rather like what you describe.

PYROXYLIN.—There was not an appreciable quantity of iron in the mixture.

LEO.—We should like to accede to your request, but to do so would make the competition interminable, as, of course, a similar opportunity should be offered to others in a like position.

PERSEINE.—It was important in this case to distinguish between the trace of calcium and magnesium, for which it was very liable to be mistaken.

PENCEDANUM.—You did not sufficiently prove that the substances detected were the only constituents of the mixture.

OZONE.—The traces of calcium and the sulphuric radicle were small, but they ought not to have been overlooked, as they were capable of detection without any special precaution.

AZALEA.—You omitted to send your name and address; it is a condition that the writer's name and address shall accompany every communication.

H. McL. R.—As shown by the general results of the analysis, referred to above, there was no special difficulty in detecting potassium; the flame reaction of the original mixture showed its presence plainly, when the usual precaution was taken to cut off the sodium light.

PERSEVERANCE.—The only test you employed to detect bromine was heating with strong sulphuric acid, and owing to liberation of iodine this test was of little use so far as bromine was concerned. It was quite easy to detect bromine as described above.

NULLI SECUNDUM.—The powder did not give a transparent bead when fused on the loop of a platinum wire before the blowpipe, and if it had done so it would not have indicated a borate, as many other salts—phosphates, for example—give transparent beads. The other tests which you describe seem conclusive enough, but if you try the same experiments with a borate you will see the difference.

DANWER.—You evidently failed to separate the iodine by the method you employed. It was better to resort to some test for nitrates depending upon reduction to nitrous acid or to ammonia.

TEMPUS.—The fumes you observed, and which you described as "purple and red," could not have been due to bromine only, as it does not yield purple fumes. If you add chlorine-water to a solution of an iodide, you will find that the iodine is not "precipitated at once as solid iodine."

ELIXIR.—Other competitors received their samples in the same state of deliquescence, so you were not worse off than the rest.

W. MASKEW.—It was clear from the very small precipitate obtained with barium chloride that only a trace of sulphate was present.

C. M. H.—The yellowish precipitate given by silver nitrate ought to have been examined for chlorine, instead of assuming the absence of chlorine because the precipitate was not white.

L. K.—See remarks to "Azalea"; you omitted to send your name last month also.

HALF-YEARLY PRIZE.

The present report covers the fourth competition of the six for which we are to award a special prize to the most successful competitor, and annexed are the awards of marks up to date. It is to be a very near thing. Moyhitt and A. Blowpipe retain the lead, and H. Bowden has leapt forward five places to the third position; J. Rose and W. Hood also materially improve their chances of getting amongst the first half-dozen. It will be noticed that any one of the first two dozen has a reasonable chance of figuring in the first six; but they must work hard to maintain the positions they have, and not trust to any of their rivals making blunders. The first three are at present so close that their figures for the four months are worthy of note. They are as follows:—

MOYHITT	January	5th place	97 marks
	February	4th "	97 "
	March	19th "	94 "
	April	8th "	95 "
A. BLOWPIPE	January	3rd "	93 "
	February	10th "	94 "
	March	16th "	95 "
	April	10th "	95 "
H. BOWDEN	January	14th "	91 "
	February	5th "	96 "
	March	3rd "	98 "
	April	6th "	96 "

Neither of these gentlemen has yet taken a prize this year. It will be noticed that the prize-winner this month has only

competed twice, yet manages to be well up amongst the first fifty. The list at present stands as follows:—

1. Moyhitt	333	53. A. P. S. (S. P. Q. R.) ..	128
2. A. Blowpipe	332	54. Eucalyptus	100
3. H. Bowden	331	55. H. O. Thurland	96
4. E. Rajah	330	56. W. Roberts	94
5. Zircolum	379	57. Atcm	93
6. Pepine	377	58. John	92
7. Verax	374	59. Peucedanum	91
8. J. Rose	370	60. Aluminium Silicate ..	91
9. B. A. (A. B.)	364	61. Success	90
10. W. Hood	355	62. M. F. O. S.	90
11. W. Maskeu	349	63. Tyro	89
12. Nulli Secundum ..	348	64. Vertolac	89
13. A. M. (Elixir, A. E. C.)	346	65. Mel	89
14. C. E. Ashby	346	66. Azalea	88
15. Ruh Raw	337	67. Epsilon	88
16. Ozone	334	68. W. Jones	87
17. Pyrrhus	333	69. Macdum	86
18. H. F.	329	70. Glucoso	83
19. Danwer	320	71. Radix	83
20. L. F. M.	316	72. L. J.	80
21. Vigovnia	309	73. H. M. L. R.	80
22. Vin de Coca (Epip.)	304	74. Perseverance	80
23. Acacla (Bynol) ..	300	75. S. O. H.	78
24. H. G. H.	297	76. J. Hamerton	78
25. Experientia	279	77. Maculatum	78
26. J. Bircham	275	78. Mercuric	78
27. W. R. H.	263	79. Broadacre	77
28. Ogito	268	80. Flamme	77
29. Leo	256	81. J. Ashworth	77
30. Nena	259	82. Nota Bene	76
31. Tempus (Digitalis)	214	83. A. Lander	76
32. Agricola	207	84. Labor	75
33. C. N. A.	197	85. Cinchora	74
34. W. J. Brewer	192	86. First Trial	74
35. Celcius	192	87. R. I. P.	72
36. Zymine	186	88. Elixir (A. R.)	71
37. Acidulons	185	89. S. P. Q. R.	68
38. Pyroxyliu	183	90. Opium	63
39. M. A. Z. (Elixir) ..	180	91. S. G. B.	63
40. C. S. R.	177	92. J. Schofield	65
41. Haslar	174	93. F. O. C. L.	60
42. Ornum	172	94. Fred Gee	60
43. Venditor	171	95. A. A. B.	58
44. C. C. D. D.	171	96. J. Daniel, jun.	57
45. Verdant Green ..	169	97. Ulexine	55
46. Sapientia	165	98. H. G. F.	55
47. S. Davis	164	99. Calomel	55
48. Spes	163	100. Xam.	50
49. Irvonium	158	101. Sarsae	50
50. L. K.	154	102. A. M. D. G.	45
51. Victory	149	103. S. H.	40
52. C. M. H.	135	104. Meirion	5

Competitors will please retain the same names throughout.

English News.

Damage to the Lectress.

At the Glamorgan Assizes, on April 7, Mrs. Thwaites, professional lecturer on chemistry, of Liverpool, recovered from the Cardiff Park Hall Company 50*l.* for neglect on the part of servants of the company in not lighting the vestibule leading to the hall after one of her lectures, by neglect of which she fell down in leaving the hall, and sustained injuries to one of her legs.

Post-Office Prosecutions.

The Post-Office authorities are prosecuting, at Birmingham, Philip Arhlaster, 19, chemist's assistant, and Emily Palfrey, 16, Post-Office clerk, previously of Birmingham, but lately of Clevedon. The prisoners are charged with conspiring to defraud a bookmaker named Frederick Davis, Small Heath, of 10*l.* 10*s.* by means of telegrams. Palfrey was until recently telegraph clerk at Soho Road Post-Office, kept by a chemist named Hues. Arhlaster is the son of one of the best-known chemists in the city, and was an apprentice with Mr

Hnes. Palfrey was sworn in due course to secrecy, but she is charged with having divulged the contents of a telegram to Arblaster, who is alleged to have incited her to do so. The case stated by Mr. Weekes, who appeared for the Postmaster-General, was that Palfrey and her brother knew the bookmaker Davis, and that about last Christmas a stranger named Powell called on him and arranged to do business with him by telegraph. It was agreed that any telegram sent up to the time of the starting of a race would be accepted and considered as a bet. The man deposited 20s. and left. On December 30 a telegram was received by Davis, giving the name of the horse "Handley Cross," which was running in the 2 o'clock race at Hurst Park races. Thirty shillings was laid on the horse, and as the telegram was not received until 3.50 Davis became suspicious, notwithstanding that it was apparently handed in at 1.55 at Soho Road office. The horse had won, and 12*l.* was due to the backer, who presented himself some days later for the money. Davis, however, refused to settle the affair until he had communicated with the Post Office authorities. This led to an investigation. Early in January the girl Palfrey removed from Birmingham, and obtained a situation at the Clevedon Post-Office. The evidence in support of the charges included two letters from the girl to Arblaster, saying that the Post-Office authorities, apprised of the matter, had urged her to confess, and threatening to save herself by turning evidence against him unless he gave her 100*l.* to compensate her for the loss of her situation. Arblaster then put himself in communication with the Post-Office, denouncing Palfrey's letter as an attempt by her and her brother to levy blackmail on him. When Palfrey heard this she made a statement to the effect that, about a fortnight after the event at the Post-Office, Arblaster came round to her and asked her to hand him all betting messages. She refused, but afterwards consented to let him take words out of racing telegrams, which he would then send with money to a betting man. Hues, the postmaster, she said, also betted on the messages, and the Rev. Mr. Gnest's son used to call and see Mr. Hues, and together they would go through the received and forwarded messages. She said Arblaster promised her 100*l.* if she lost her situation. The case, which was first heard on April 8, was adjourned, bail being refused.

The hearing of the case was resumed on Wednesday, when Mr. Hnes was allowed to contradict the allegations made against him by Palfrey. He said he had not consulted the telegrams, though he admitted that he had an occasional bet on races. The authorities do not intend to proceed against him, though for the present they have provided a substitute at his post office. Arblaster and Palfrey were committed to the sessions, bail being allowed.

At the Sunderland Police Court, on Saturday, James Harrison (39), a chemist, and late sub-postmaster at Silksworth Row, was charged with having embezzled 8*l.*, the moneys of the Postmaster General. Detective George Nicholson said he took the prisoner into custody in the Bee Hive public-house, on Friday night. He took the prisoner to the Central Police Station, and when in West Wear Street he noticed that Harrison was fumbling about his right pocket. He asked, "What have you got there, Harrison?" To which he replied, "Nothing," and hurriedly withdrew his right hand and put something towards his mouth. Witness seized his hand, and a struggle took place. In the struggle a small bottle was broken, and some liquid flowed to the ground. Witness picked up the broken pieces of the bottle, and found that it had been labelled "Poison," and contained hydrocyanic acid. Harrison was remanded in custody.

The Last Chords.

On Thursday, April 7, the members of the Chemists' Assistants' Association met for the last time this session on social thoughts intent, and to cap the almost completed work of a most successful session with musical honours. It was a good affair, Mr. Charles Umney, the chairman, giving that amount of "go" to the proceedings and cigars which make things of that kind so enjoyable. He had good backers in his son, John C., the accompanist, and Mr. Percy Umney, who sang several songs most delightfully. Dr. Rathbun and Mr. S. A. Walton recited, Mr. R. Norton created quite a sensation with his zither solos, and such old favourites as Meers A. H. Mason, H. H. Robins, S. E. Pope, Wood, and

the youthful comic, Reginald Edwards, who sports another name in his everyday dress, added charm to the concert. Before breaking up, Mr. W. Lloyd Williams thanked Mr. Umney on behalf of the Association for presiding that night, and expressed the universally-felt regret that owing to Mr. John C. Umney being now a partner in his father's firm, the Association could no longer have his services as a member of council. To that Mr. Umney replied that he believed that young pharmacists were the better for such social gatherings as these. As to his son's retirement from the executive of the Association, he hinted that they had not exhausted the supply, for he had six consecutive sons (there were 36 feet of them), and there was a bigger one than John C. now in pharmacy.

Mistakes with Poisons.

On April 6, George Egerton, wheelwright, of Leighton, near Crewe, drank a quantity of nitric acid under the impression that it was whisky. He died soon afterwards in great agony.

On April 7, Catherine Davies, of Vivian Street, Liverpool, died at the Royal Infirmary there through drinking spirits of salt.

An inquest was held at Lancaster, on April 9, concerning the death of Joseph and Eleanor Parkinson, children of an architect, who appeared to have died from poison. This could only be attributed to their having chewed some tinfoil.

On April 10, two children, aged five and three years respectively, daughters of a miner named Herrington, residing at Rothwell, near Sheffield, were poisoned by taking mice-powder, during their mother's absence. On the latter's return she found the children unwell, and called in a doctor, but the elder died in twenty minutes and the other shortly afterwards.

Carbolic acid Poisoning.

George Woodbridge, an oil and colour man, of 71 Angel Lane, Stratford, drank carbolic acid last week, "while temporarily insane," and died.

Stopping a Dog Fight.

At the Newmarket Petty Sessions, on April 5, Thomas W. Burch, chemist's assistant, was charged with ill-treating two dogs. It appeared from the evidence that the defendant, in order to stop two dogs which were fighting, took out a bottle of pure ammonia, and poured a little on the dogs' faces. This had the effect of blinding one dog entirely and partially blinding the other. The defendant admitted the fact, but urged that he had no intent to ill-treat the dogs. He had intended only to apply ammonia on a handkerchief to prevent the dogs tearing each other to pieces, but in the excitement he dropped some on their faces. The Bench expressed the opinion that there was no intention on the part of defendant to act cruelly to the dogs, and therefore he had not brought himself within the meaning of the Act under which he was charged. The case would be dismissed. On the application of the inspector who prosecuted for the Society for the Prevention of Cruelty to Animals, the Bench remitted the costs, on the ground that they considered it to be a case that ought to have been brought forward.

Ruined by Chloroform.

Frank Adamson, 36 years of age, formerly a partner in the firm of Urquhart & Adamson, cabinet-makers, of Bold Street, Liverpool, was found last week dead in bed in a lodging-house, with a bottle containing a small quantity of chloroform in his right hand. In his pockets were two other bottles which had contained chloroform, one bearing the label of a Berry Street chemist and the other of a Ranelagh Street chemist.

Mr. J. P. Day, chemist, 148 Lodge Lane, said at the inquest that deceased bought an ounce of chloroform from him on Sunday, on Monday a second ounce, and on Tuesday a third ounce. He called again later on Tuesday and asked for another ounce, stating, as he had before, that he used it for rubbing upon his shoulder, as he suffered from neuralgic pains. Witness refused to serve him this time.

Mr. W. Chambers, chemist, Lodge Lane, said deceased bought one ounce of chloroform from him on Tuesday. He came again on Wednesday and asked for another ounce, but

witness had only half an ounce in the shop. Other witnesses stated that deceased had begged money from them.

The jury returned a verdict to the effect that deceased had come by his death from misadventure by taking an overdose of chloroform, which he had been in the habit of taking for some years.

The Public Analyst and Medical Officership of Islington.

The medical profession of Islington have not stood by their deputy-coroner in his appointment as Public Analyst and Medical Officer for Islington—in fact, they have gone directly against Dr. Wynn Westcott by memorialising the Local Government Board to have the appointment properly filled. Dr. Wynn Westcott was a member of the Islington Vestry, and resigned a short time before it became necessary to fill the vacancy caused by the death of Dr. Meymott Tidy. The vestry elected Dr. Wynn Westcott temporarily to perform the duties; but as there was a by-law of the Vestry that none of their number should seek a post of emolument under the Vestry in less than six months after resigning—and also because the appointment was not publicly advertised—the Local Government Board have acceded to the above-mentioned memorial, and refused to ratify Dr. Wynn Westcott's appointment. This was intimated to the Vestry on Friday night, and received the approval of the "anti-jobbery" party.

Provident Dispensaries and the Poor.

At the North London Police Court, on Saturday, before Mr. Haden Corser, Dr. David Hyman Dyte, of Derby Street, King's Cross, was summoned, at the instance of the Registrar-General, for issuing a false death certificate, and his unqualified assistant (Henry Smythe) was summoned for using the same. The allegations were that at a Provident Dispensary, 43 Poole's Park, Holloway, poor people went and paid their shillings, and invariably were prescribed for by a lady. If matters did not go on right they saw Smythe, who usually demanded 2s. or 2s. 6d., and if a death occurred a certificate was given signed by Dr. Dyte, whom some of the patients had never seen. Mr. Townley, who prosecuted, said he was prepared to prove four such cases; but Mr. Lyon, who defended, pleaded guilty, and said it was all owing to an accident which Dr. Dyte sustained which prevented him seeing the patients, though he acted on the notes of his assistant. Mr. Corser said it was a serious matter for a medical man to sign a death certificate when he had not seen the patient. Dyte was fined 10l. and Smythe 5l., each with 12, 13s. 6d. costs.

Chemists as Guardians.

Mr. C. G. Breadner, chemist and druggist, has been returned at the head of the poll this week in the election of guardians for the Prestwich Union, Manchester. Another druggist, Mr. John Horsfield, Cbeetham Hill Road, was also elected.

Mr. A. E. Horrell, chemist, of the firm of Horrell & Goff, of Dartford and Hastings, has been again successful at the poll for members of the Dartford Local Board.

Mr. E. J. Coleman, Cardiff, has been elected a member of the Board of Guardians for the Cardiff Union.

The triennial election of guardians for the Sheffield Union has this time been vigorously fought on strict political party lines—eleven Conservatives as against eleven Liberals. One of the Conservative team was Mr. G. T. W. Newsholme, and he was elected, coming out ninth on the poll, with 3,770 votes.

The Curate on Chlorodyne.

Speaking at Southport last week, the Rev. Mr. Nickling (curate of St. Paul's Church) stated that the habit of drinking chlorodyne was on the increase in the country, and that the consumption of the deadly drug was largely practised in Southport, some of the local chemists informing him that chlorodyne-drinkers were their best customers.

The Chlorodyne Customer.

At Croydon, on Friday of last week, Eliza Britton, of Thornton Heath, a well-dressed woman, was charged with obtaining from a chemist a quantity of chlorodyne by false pretences. The prosecutor, Mr. Hoare, of Sntton, now stated

that he did not wish to press the charge. The husband of the accused said unfortunately his wife was in the habit of taking chlorodyne. When under its influence she was not accountable for her actions. Prisoner was discharged.

Liverpool Pharmaceutical Students.

The closing meeting of the Junior Society was held on Thursday, April 7. Mr. T. S. Tabor read a paper on "Photography," pressing the importance of the art to chemists, as a knowledge of its mysteries enabled them to converse intelligently with their photographic customers. In this way only, he contended, could the sale of photographic chemicals and apparatus be made profitable in the ordinary course of business to the pharmacist. A succinct history of the art was given, including a description of the various parts of the camera, forms of lenses, shutters, and all the necessary apparatus. The lecturer exhibited a camera and other apparatus made by himself. He also showed some capital photographs, among which was one of a "ghost," the familiar lineaments of which were recognised as those of a leading member of the Society. A hearty vote of thanks was awarded to the lecturer, after which a very successful flash-light photograph of the audience was taken and developed.

Manchester Pharmacists Smoke and Sing.

The Manchester Pharmaceutical Association wound up one of the most successful sessions on record with a smoking-concert, held on Tuesday night at the Albion Hotel, Piccadilly—the Manchester Piccadilly. Invitations had been issued not only to the members of the Association, but to all the registered chemists and druggists of the district, and about sixty responded to the invitation. Mr. George S. Woolley, the President of the Association was late in arriving, and he had to go off early, and under these circumstances the duties of the chair were discharged—efficiently discharged—by Mr. Pratt. There was almost sufficient vocal talent amongst the pharmacists to furnish a musical entertainment all by itself, but the services of Mr. "Johnnie" Greenwood and other professionals had been enlisted, and they proved useful in eking out the programme. The proceedings, which were kept up till midnight, passed off very satisfactorily.

Serious Charge against a Chemist's Assistant.

Alfred John Field, 23, chemist's assistant (whose case we reported last week), came again before Mr. Haden Corser, at the North London Police Court, on Tuesday, charged under the Criminal Law Amendment Act with having committed certain offences against Susannah Clapperton, his sister-in-law. Mr. Geoghegan, who prosecuted for the Society for the Protection of Women and Children, said the case was an extraordinary one. Prisoner, it appeared, believing that such a course was necessary to save his life, had got his wife to procure her sister for him. The wife had done this in the full belief that her husband would benefit thereby. The wife's sister became enceinte, and the prisoner gave her a noxious drug. The wife of the prisoner was called, and detailed all the conversations she had had with her husband which led up to the acts included in the charges, her statement being that she did indeed believe it would save her husband's life. The prisoner had also asked her to procure another sister, but this was refused. She (witness) had given Susannah medicine on the instructions of her husband. Mr. Haden Corser remanded the prisoner on 100l. bail.

Irish News.

The Prosecution of Mr. Selkirk, Cork.

After giving judgment against Mr. James Selkirk, pharmaceutical chemist, Cork, in the action brought against him by the Pharmaceutical Society of Ireland, and reported last week, the magistrate, Mr. Gardiner, said there was one matter which he might mention, and which looked doubly hard on Mr. Selkirk, and it was this:—Mr. Selkirk had been in Cork since the passing of the Irish Act, and up to the present there had not been, with one exception, any pro-

ceedings instituted against him, and these were withdrawn owing to his illness. It certainly was hard on him now, after his long and many years' faithful service to the public, that he should be brought up and prosecuted for acts of this sort.

Mr. A. Julian, solicitor, who appeared on behalf of the prosecution, said that, in justice to the Pharmaceutical Society, he should say that applications were sent to Mr. Selkirk, from time to time, but he took no notice of them.

Mr. Lawrence, who appeared for the defence, said that was not so. The first intimation his client got was the summons.

Mr. Gardiner presumed there would be an appeal in the case. He would be glad if there was, and, pending that appeal, he did not think, having regard to Mr. Selkirk's well-known qualifications, there should be any interference with his business, one way or the other.

Mr. Julian did not think his clients had any power one way or another in the matter; but from what he had heard, he would ask the Bench to allow the other summonses against Mr. James Selkirk to remain adjourned for a week, until he had consulted his clients as to whether they should be proceeded with or withdrawn. The summons against Mr. Wm. Selkirk was on an entirely different basis, and he would go on with that.

Mysterious Poisoning Case.

A schoolmistress named Mary Daly died at Milltown, near Tuam, last week, after taking a powder, apparently from poison. A post-mortem examination also suggested poisoning. At the inquest a letter to the deceased from her sister in Armagh was produced stating that she (the sister) would send her a liquorice-powder which somebody had recommended. The case is under investigation, and the inquest has been adjourned.

The Latest Poison.

At the Cookstown Petty Sessions, on April 8, a grocer named John Early was fined 5*l.* for selling half a pint of ether. The defence was that the sale was made unauthorised by his son. This is the first prosecution in this district since ether was scheduled as a poison. It seems there is a mistaken idea amongst grocers, publicans, &c., that this article may still be sold as formerly if labelled "Poison." This prosecution will, perhaps, dispel that idea.

Much Consternation

is felt by several northern companies who are practising as dispensing chemists, and who are unqualified (says a Belfast correspondent), caused by the letter of the President of the Pharmaceutical Society, which appeared in your last issue. The founders of these companies, as a rule, were connected with the trade, and had the example of the large corporations in England, showing them they were within the law. If the Council's reading of the Irish Act is correct, there will be many business changes here.

Modernised.

Mr. M'Bride, of English Street, Armagh, has just completed a good improvement in the city Medical Hall. The old-fashioned private windows and entrance with steps has given place to a very handsome plate-glass front and entrance on the street-level with encaustic tiled porch and reflecting mirror. The inside is most tastefully got up, the floor being laid in Minton mosaic tilings, while all around it is done up with mirrors and mahogany fittings.

Postponement of Assistants' Examination.

The secretary of the Privy Council having informed the Pharmaceutical Society that it is not probable there will be a meeting of the Privy Council before April 13, and that therefore the examiners appointed for the "Assistants'" qualification cannot be approved of in time for the date arranged, the examination has been postponed until Wednesday, April 27.

A New School of Pharmacy Proposed.

The Council of the Royal College of Surgeons in Ireland have under their consideration recommendations to establish a school of pharmacy in connection with their College; and it is proposed that in that case no certificate in pharmacy

shall be accepted from students who have not attended either the school to be established, or that in connection with Trinity College, Dublin. Should this recommendation be adopted it will deprive pharmaceutical chemists and the chemists and apothecaries of the various public dispensaries in connection with the Dublin hospitals from giving pharmaceutical certificates to students whom they have taught for the College. It is, therefore, a matter of much importance to pharmacists.

A Long Contract.

Messrs. Thacker & Staffe (Limited), of Dublin, have been appointed contractors for the supply of medicines to the Roscrea Union for the term of *three* years, which is an exceptionally lengthened period, most contracts of this class being annual ones.

Irish Bankrupt.

From the Dublin Gazette, Friday, April 8, 1892.

W. J. M. Jackman, of Edenderry, in the King's County, druggist—proof of debts and choice of assignee, April 22; final examination, May 10. Mr. Jackman has left Edenderry, and his present address is unknown to his creditors.

Scotch News.

Glasgow Changes.

Mr. James Irving, lately in the employment of the Glasgow Apothecaries' Company, has purchased the business of Mr. John Keith, chemist, 10 Victoria Street, Newton-Stewart. Mr. Keith has opened an establishment at Blyth, in the North of England.—The business of Mr. Thomas Hart, chemist and druggist, 567 Duke Street, Glasgow, has changed hands. The concern has been bought by Mr. Alexander Miller, lately assistant to Mr. John W. Weir, at Bridgeton Cross.

Parish Medicines in Glasgow.

At the last meeting of the Glasgow Barony Parochial Board a return was submitted showing the number of cases treated by the medical officers in the eight districts of the parish, with the number of prescriptions issued, and cost to the ratepayers. The total number of cases treated was 6,536, and of recipes issued, 11,421. The average value per recipe was 1*s.* 3½*d.*, or a total of 742*l.* 2*s.* 7*d.*, while the net cost of drugs dispensed was 241*l.* 16*s.* 2*d.* During the past month the number of prescriptions issued by the medical officers was 1,064, as against 1,218 for the corresponding month of last year. The value of these recipes was 70*l.* 17*s.* 10*d.*; while in March, 1891, it was 82*l.* 5*s.* 9*d.* At the same meeting the Board appointed Mr. W. J. McKinnon dispenser for the Western district dispensary, in room of Mr. John Bryce, resigned. Mr. McKinnon's salary was fixed at 60*l.* per annum.

Explosion in a Chemical Factory.

On April 8 a plumber named Lockerbie, while soldering the joint of a 12-inch pipe in the new chemical works on the Ardeer lands, near Irvine, was seriously injured by an explosion of hydrogen gas. The gas, which had accumulated in the pipe, ignited, and the pipe burst with a report like that of a cannon. Lockerbie turned a complete somersault in the air, and was fortunate in not dropping into a large tank of acid close by. He was, however, severely burned on the face and arms, and very much bruised and shaken.

Dundee Notes.

Mr. Mair, the secretary of the local Association, gave an instructive lecture on volumetric analysis to his fellow-members last week.

Mr. George Little is leaving town to start business on his own account at Moffat.

Aberdeen News.

Mr. Adam Alexander, chemist and druggist, late of Rhynie, figured in the senior division of the class prize lists, Aberdeen University, medical faculty, with 71 per cent. in

advanced anatomy, 65 per cent. in medicine, 71.6 per cent. in advanced surgery, and medallist in the senior division of materia medica.

Mr. James Whyte, Rosemount Viaduct, has disposed of the fittings, &c., in his Rosemount Place shop to Mr. R. Black, Commerce Street, who is to utilise them to fit up a branch shop in Justice Street. These same fittings have been twice sold by Mr. Whyte to two different persons named Black.

French Pharmaceutical News.

(From our Paris Correspondent.)

PROMOTION OF PROFESSORS.—Dr. Milne Edwards has been appointed assessor of the director of the Paris Superior School of Pharmacy, and M. Pouchet has been nominated to the chair of pharmacology at the Paris Faculty of Medicine.

A MUNICIPAL ELECTROPATHIC INSTITUTE.—A proposition for the formation of a municipal electropathic institute at Paris was presented by Messrs. Dubois and Vaillant at a recent sitting of the Municipal Council. It is stated that the premises of the services of electropathy at the Salpêtrière are too small and inconvenient.

THE ADULTERATION OF MILK.—The President of the Eighth Correctional Chamber has delegated three chemical experts—Messrs. Lhôte, Ch. Girard and Magnier de la Source—to study the nature of the milk delivered daily in Paris. They are to make a point of finding out if the milk has previously undergone certain manipulation, such as being mixed with boiled or skimmed milk. They will also report on the analysis of milk boiled by themselves, while taking into account the processes in use by the Paris milk trade. These chemists have adopted a standard based on the examination of mixed milk coming from a large number of cows.

A LETTER OF BREZELIUS.—One of a number of letters written by Brezelius to M. Dulong, the French savant, was read by M. Bertrand at the Academy of Sciences last week. It contained a description of a journey to Geneva in 1819, in the course of which Brezelius describes, in a tone of biting sarcasm, the chemistry classes then held at Lyons. The professors are the object of the caustic but amusing satire of the clever Swede. He also describes the scientific life of Candolle, Pictet, &c., at Geneva. His French is excellent, but the uniform vein of irony shows he belonged to that class whose indulgence for their own foibles is not extended to the weakness of others—"a class," remarked M. Bertrand drily, "which would appear still to exist."

THE PRICES OF MEDICAMENTS.—Some of the Limoges pharmacists have declared that the free public dispensaries and benefit societies pay prices for medicaments at which it is manifestly impossible to supply the pure article, and a well-known Parisian daily newspaper supports their opinion. It is asserted by the Limoges members of the profession that those who take the contracts at cutting prices for such articles recompense themselves by supplying bad drugs. They even omit or replace any very expensive drug prescribed, trusting to the lack of supervision to conceal their malpractices. The remedy proposed for this cutting is more rigorous inspection by competent authority of the drugs found in every pharmacy.

A CUTTING PHARMACIEN.—M. Brindeau, Rue Baudrière, Angers, who was alluded to under the above heading in THE CHEMIST AND DRUGGIST of February 27, has been found guilty of selling adulterated antipyrin, and condemned to a fine of 25f. He profits, however, by the law Beranger, which provides for the postponement of the sentence of a first offender during his good conduct. He first commenced business in Paris some seven years ago, and afterwards went to Le Mans. His Angers pharmacy is comparatively recently installed. His defence was that he had three kinds of antipyrin in his establishment—sugared, granulated, and pure, and had delivered the first in error; but the depositions of his assistants did not support this. It was stated for the prosecution that he had adulterated other pharmaceutical

products—rhubarb, sulphate of quinine, &c.—and made cinchona wine with exhausted mare, and blistering ointment with scrapings, &c.; but this does not appear to have been confirmed on oath.

ARTIFICIAL LIGHT BY ALUMINIUM.—In the "Revue de Chimie Industrielle" M. A. M. Villon makes a suggestion for replacing magnesium light by aluminium for such operations as taking photographs at night. Aluminium has the advantage of being only a third the price of magnesium, and M. Villon finds that it burns in the flame of a spirit-lamp in the same way as magnesium but more slowly. In the flame of an oxy-alcoholio, oxy-etheric, or oxy-carbonio light it burns with great intensity and without producing smoke. In this respect it is superior to magnesium. The following formula is said to give fairly good results for producing aluminium light:—

	Parts
Chlorate of potash	20
Aluminium in powder	8
Sugar	2

The mixture may be placed in a metal basin and lighted by a cotton wick arranged with touch-powder. Or it may be wrapped in Bengal paper and suspended from the ceiling by a string, the light being produced by gun-cotton, which should reach into the centre of the composition. Unfortunately these mixtures are dangerous, and aluminium produced in this way has all the inconveniences of magnesium. M. Villon finds it preferable to use lamps in which aluminium has been introduced in fine powder. He has arranged a lamp, the flame of which can receive a jet of oxygen at its centre, and in which a certain quantity of powdered aluminium may be introduced by means of an indian rubber injector. He finds an advantage in adding a little lycopodium and a small quantity of a nitrate with the powdered aluminium. The following combination gives a very powerful light:—

	Parts
Aluminium in powder	100
Lycopodium	25
Nitrate of ammonia	5

Coloured flames may be obtained by adding salts of strong tin, barium, copper, &c.

Foreign and Colonial News.

THE PRICE OF A NEW REMEDY.—It is stated that the Aniline Works of Meister Lucius & Brüning, in Höchst, near Frankfort, have just paid 300,000m. to a Frankfort chemist for the rights of a neuralgia remedy discovered by him.

ANOTHER CENTENARIAN CHEMIST.—Professor Ignatius Vonberg, of Kief, is quietly creeping up as a rival to Chevreul's fame as a centenarian. Chevreul was born on August 31, 1786; Vonberg commenced his earthly career on January 17, 1791. But the former died on April 9, 1889, while Vonberg is still in excellent health. He will not pass Chevreul's age until August, 1893.

PRESCRIPTION-BLANKS are very important articles to American pharmacists and physicians. The former use them as advertising matter, and the physicians get them for nothing. There is some consternation in New York, therefore, at the proposal of the Legislature there to compel prescribers to write their prescriptions in duplicate on blanks of a certain size and form. The Legislature has not much to do, apparently.

INTERNATIONAL PHARMACEUTICAL CONGRESS.—Following the announcement regarding the World's Congress of Pharmacy called to Chicago in 1893, Professor J. M. Maisch, permanent secretary, and Mr. Alex. Findlay, president of the American Pharmaceutical Association, have issued a circular invitation in English, French, and German to the pharmaceutical societies, pharmacists, and pharmaceutical teachers of all countries to appoint delegates to that congress. Steps for promoting the objects and deciding upon the date of the congress will be taken at the meeting of the American Pharmaceutical Association in July of the present year.

NITRIC ACID FOR WARTS.—Miss Agnes Shea, a Woodstock (Cape Colony) dressmaker, went into the shop of Mr. Pasbaud Hutchinson, a local chemist, and asked for "something" to apply to some warts on her hands. Mr. Hutchinson's son, who acts as apprentice to his father, was behind the counter at the time. In response to Miss Shea's request for "something," he took down the nitric acid bottle, unstoppered it, knocked off the moisture against the side of the bottle, and applied the edge of the stopper to the wart, just sufficiently to moisten the wart. He also sold her a ½-oz. bottle of the acid. Three days afterwards Miss Shea came to the shop and stated that her hands had been burnt. The young man told her to put on some poultices, and come and see his father later on. Instead of adopting that course, Miss Shea sued Mr. Hutchinson, sen., for damages, and succeeded in recovering 20*l.* and costs.

THE AMERICAN TOOTHBRUSH INDUSTRY.—The New York *Oil, Paint, and Drug Reporter* has been enlightening its readers on the cause why toothbrush-making is a declining industry in the States. "The fact is," says our contemporary, "that the disparity in the cost of labour here and abroad on this class of work is so great as to place the American manufacturers at a very decided disadvantage. That as good, if not better, toothbrushes, could be made here as abroad is beyond question, but unless the manufacturer had secured a special reputation for his goods he was nowhere in the race with the cheaper foreign product. Ten years ago there were about a dozen concerns engaged in this industry in this country. To-day there are not more than three or four actively employed in the business. Of these, one is making a special brush covered by a patent, the invention of a dentist, and enjoying a profitable, though comparatively limited, trade. Of the others, at least three, who at one time did a large traffic in the article, have entirely abandoned the business. Another has reduced his working force from fifteen or twenty hands to one or two. The others continue to manufacture on a limited scale. So-called American toothbrushes are still to be found in the market in large quantities, but it is claimed by those who ought to know that they are made in Europe—generally France—and are there stamped with the name of an American firm. In Europe women and young girls are employed at a maximum wage of a dollar a week (*sic!*). In the United States the cheapest labour to be had costs at least 3 dollars per week. Here the labour is continuous, and the employers exacting. There probably the larger proportion of the brushes made are made at home by the operators in odd moments snatched from other duties. Even the school-children are impressed for the work, devoting such time as they have to spare between studies to making toothbrushes, and thus adding a few pennies per day to the family income (*sic!*). The Japanese learned the art of making toothbrushes from the Americans. The first toothbrush-factory in Japan was established some four or five years ago, as the result of a purchase outright of a plant that had been operated in the States for a number of years on anything but a paying basis." There are now several toothbrush-works in Japan, which appear to do a thriving export trade with America.

ENGLISH ASSISTANTS IN INDIA.—On February 19 the Court of Madras delivered judgment in the case of Kittow v. W. E. Smith & Co. The plaintiff in this case came over from England in April, 1891, to serve as an assistant in Messrs. Smith & Co.'s shop, at a salary of 100 rs. per month, *indoors*. He was dismissed, wrongfully, as he alleged, without notice, on November 6 last, and his claim was for 120 rs. salary in lieu of notice, and 50 rs. for expenses incurred by him for board and lodging during one month after he left the defendants' employ. Messrs. Smith & Co., in their defence, contended that they did not dismiss the plaintiff, but that he dismissed himself with his own consent; that he was guilty of such misconduct as would have justified his dismissal; that he was not entitled to one month's notice, and one month's wages as compensation, notwithstanding the provision in the agreement on this subject. Mr. P. Seenivasa Row, the Second Judge, after hearing witnesses for both sides, delivered judgment for the plaintiff for the full amount claimed and costs. The plaintiff, said the learned judge, was in the defendants' employ from April 8 to November 6, 1891, and during this period he was never disrespectful to

his masters, and the relation between them seems to have been always friendly. Indeed, so recently as the night before the dismissal, the plaintiff was asked to a party in the defendants' house, and he enjoyed all the privileges of an invited guest. But there seems to have been some little friction between the plaintiff and Mr. Smith's son, a junior partner in the firm. On one occasion the junior partner discovered that the plaintiff had put a wrong label on a bottle of medicine. He found fault with him for doing so and for bad writing, and the plaintiff became angry, and made certain uncivil remarks which led to the senior partner remonstrating with the plaintiff for being "insolent and rude," and concluding with the remark that he would have to dismiss him if he could not be civil. The plaintiff became excited, lost his temper, and exclaimed that was just what he wanted. Then Mr. Smith, sen., said, "I dismiss you," and bade him leave the shop, and as plaintiff was still tarrying there, making use of offensive language, he ordered a native servant to turn him out. But, said the judge, the words used—viz., "that is just what I want; I want to leave this firm"—could not be fairly construed into a determination that the plaintiff resigned his appointment with a free will and consent, considering that those words were uttered in the course of a hurried conversation which took place in the heat of an unpleasant controversy. Moreover, the plaintiff was almost a stranger in Madras, having been sent out to India at defendants' request just a few months previously, and he was, by his agreement, bound to serve defendants for three years, and even after that term he was bound by the same agreement "not to take employment with anyone else in Madras, or open a business on his own account, or in partnership with anyone in Madras or within twenty miles of Madras, or other branch house" of the defendants.—Mr. Kittow, after leaving Messrs. Smith's firm, was without employment for a considerable time, but he has since started in business on his own account at Naini Tal, N.W.P.

BANKRUPTCY REPORT.

SAYDIS "CHALLENGE REMEDIES" COMPANY.

In this matter Miss Kate Sinclair and her sister Miss Edith Mary Sinclair were called, on Thursday of last week, on their adjourned public examination, but only the latter appeared.

It will be remembered that on the last examination Mr. Norton said that he thought he would be able to show that the debtor Edith Mary Sinclair was not a partner in the concern, and that really Mr. Morris himself constituted the company.

Miss Edith Mary Sinclair, questioned by the Official Receiver, said she had not seen her sister Kate for a month, and on calling at the Northern Hospital in Liverpool that morning, she was surprised to find that she had left that institution, where she had been a nurse for about a month, and the matron did not know where she had gone. The matron told her that her sister had said before leaving that her friends had advised her to take a little holiday.

The Official Receiver: Have you any idea who the friends were?

The Debtor: Mr. Morris, I suppose. It was a great surprise to me to find that she had gone.

The Official Receiver: I think I may say at once that the whole matter is before the Board of Trade at present, and a motion will probably be brought asking the Court to say who the bankrupt really is in regard to the Saydis "Challenge Remedies" Company. Until that question is dealt with, I think this examination had better be adjourned. The matter would have been brought before the Court before, but the fact is I have no money in the estate, and I have had to lay it before the Board of Trade, and ask them if they will take it up on public grounds, so that I may assist the Court, and find out who are the partners, if any.

The examination was adjourned to May 12.

ALTHOUGH PILOCARPINE increases the flow of saliva most remarkably it has no effect at all on the secretion of milk, except slightly increasing the percentage of milk sugar in it.

Pharmaceutical Society of Ireland.

THE following completes the report of the Council meeting held on April 6. The first part was published in our last issue.

THE PRELIMINARY EXAMINATION.

The PRESIDENT said he sent Dr. Duffey's report to the Society's examiner, Dr. Cosgrave, who had written the following in reply:—

5 Gardiner's Row, Dublin,

March 18, 1892.

DEAR SIR,—I am obliged to you for sending me Dr. Duffey's report to read. There are two points in it on which I would like to make some remarks: (1) "There were eleven candidates who, according to the orders of the Privy Council, April 18, 1883, in force at the time and regulating these examinations, were not entitled to pass, inasmuch as they did not obtain a percentage of 50 per cent. of the entire marks in English and arithmetic." There is no foundation for this assertion. I can only suppose that Dr. Duffey referred to the wrong page of the Calendar—that is, to page 83 of 1891. Had he looked at page 87, he would have found that arithmetic included "to describe the weights and measures of the Pharmacopoeia and of the metric system." Therefore, in estimating the 50 per cent. in English and arithmetic, the marks received in "weights and measures" had to be taken into account. During 1891 not a single candidate passed who "did not obtain a percentage of 50 per cent. of the entire marks in English and arithmetic." I am sorry I had not an opportunity of explaining this before you wrote to the Privy Council. (2) "Three candidates who passed were very deficient in knowledge of some of the subjects." As you rightly point out, last year I had no option but to pass these three men; no discretion was given to me.

I am, very truly yours,

The President, Pharmaceutical Society. E. MACDOWEL COSGRAVE.

Mr. GRINDLEY: It would be well to send a copy of that to the Privy Council.

The PRESIDENT: I think it would, and will direct it to be sent.

Mr. WELLS: We should remind Dr. Duffey and the Privy Council that our new regulations were made to get over the difficulty that existed. According to the old regulations a candidate need not have known a single word of Latin, although that language was in the curriculum. He was tied to English and to arithmetic.

REGISTRATION OF APOTHECARIES AS PHARMACEUTICAL CHEMISTS.

The PRESIDENT read the following letter which he had addressed to the Privy Council in reference to the registration of licentiates of the Apothecaries' Hall as members of the Society:—

67 Lower Mount Street, Dublin,
March 8, 1892.

To Sir William Kaye, Secretary to the Privy Council, Dublin Castle.

SIR,—In reply to your letter of February 18, I am requested by the Council to inform His Excellency and the Privy Council that the Apothecaries' Hall, now under the conjoint medical scheme, accepts men for registration after a course of three months' instruction in a school of pharmacy—which may be but for one hour three times a week—which our Council considers quite inadequate practical training for a pharmaceutical qualification, when their own licentiates are required to put in four years as apprentice or assistant, and their time wholly employed at this work; so that our Council does not consider it would be proper or safe to the public to allow an apothecary who would be uneducated in this special and most important branch to assume the title of pharmaceutical chemist. The Council has, however, adopted your suggestion, and put Regulation II. (Finance), page 109 in the New Calendar, in its amended form, under a separate heading, namely, "Apothecaries," reading thus:—"The fee for a licentiate of the Apothecaries' Hall of Ireland to be registered as a pharmaceutical chemist shall be three guineas; but such apothecary shall not be registered unless he shall give evidence to the satisfaction of the Council that he has served a *bona fide* engagement for a term of four years as apprentice or assistant with and in the sole employment of a pharmaceutical chemist or apothecary keeping open shop."

I am, Sir, your obedient servant,

WILLIAM HAYES, President.

A MEMBER OF COUNCIL RESIGNS.

A letter was received from Mr. G. Lane McCormack (Dublin), stating that in consequence of inability to attend the meetings of the Council in the afternoon he felt obliged

to resign his seat on the Council. He thanked the members for their kindness to him on all occasions.

The PRESIDENT said he had received a private letter from Mr. McCormack to the same effect.

Mr. BEGGS moved that the resignation of Mr. McCormack be accepted with regret.

Mr. WELLS seconded the motion, which was agreed to.

In reply to the REGISTRAR,

Mr. HODGSON said it would be more satisfactory to defer the filling of the vacant place until the next meeting of the Council. Gentlemen would have an opportunity of thinking over the matter in the interval.

THE EXAMINERS OF ASSISTANTS.

Letters were received from Mr. John J. Bernard and Dr. McKinney (Belfast) thanking the Council for having appointed them examiners of pharmaceutical assistants.

WAS HE A DRUGGIST?

A letter was received from Mr. W. J. McNeight, requesting the Council to reconsider the application of Mr. J. J. Cowley to be registered as a chemist and druggist, which the Council had refused. The letter stated that at the suggestion of the writer Mr. Cowley had described himself as a general merchant in his application, because he had not previously called himself a druggist, although he submitted that he was entitled to do so having regard to the trade which he carried on. Other applicants, it was further stated, who had described themselves as Mr. Cowley did, had been registered.

Mr. WELLS referred to a statement in the letter of Mr. McNeight to the effect that there was a decision of the Council that any man who sold poisons was entitled to make oath that he was a druggist. He (Mr. Wells) never heard of any such decision, and it would have been extremely wrong to make it.

Mr. GRINDLEY: Mr. McNeight is under a misconception as to the reasons which actuated the Council in refusing Mr. Cowley's application.

Mr. HODGSON: It was want of evidence.

Mr. WELLS: He did not make the necessary application, and when he was asked for further evidence he could not give it.

Mr. BOYD: He gave you invoices.

Mr. WELLS: He gave an invoice of one item, and he stated in his letter that he had never called himself a druggist.

The PRESIDENT said Mr. McNeight's statement was that he had known Mr. Cowley for over twenty years, and that he believed him to be a druggist; and that Mr. Cowley had dealt almost exclusively with Messrs. McDonnell & Co., but that, as that firm had given up business, their books were not available to supply Mr. Cowley with the necessary evidence.

Mr. WELLS: If you look at his papers you will find that there is not a single thing to justify you in registering him. If any other person, less entitled to be registered than he is has been registered, that person ought to be taken off the register.

Mr. HODGSON: We might send the question again to the Declarations Committee.

Mr. GRINDLEY: We had the case before us over and over again, and went into it thoroughly.

Mr. SIMPSON: He could only produce one invoice of 7 lbs. of sublimate. Was that enough to constitute him a druggist? No man should be considered a druggist who could produce no more evidence than he did.

Mr. BOYD: If Messrs. McDonnell's books were forthcoming there would be sufficient evidence.

Mr. SIMPSON: How long is it since they gave up business?

Mr. BOYD: About five years. Mr. Cowley can prove that he is doing business as a druggist at present. The difficulty is to show that he was doing that class of business before 1875.

The PRESIDENT: We have several invoices from him relating to his business now, and the committee won't accept them.

Mr. WELLS: You sent this case to the Castle, but the Attorney-General declined to interfere. We could get no poison books or labels from Mr. Cowley.

The PRESIDENT said the Council had better deal with the case now.

Mr. WELLS: He has been rejected, and the question is, will you re-open the case now? I object to it.

The proposal to re-open Mr. Cowley's case was then put from the chair and negatived.

Mr. BOYD: My reason for not voting for the re-opening of the case is that it would form a very awkward precedent. (Hear, hear.)

ONLY A SURGEON'S QUALIFICATION.

A letter was read from Mr. John B. Kinslagh, L.R.O.S.I., stating that he was taking steps to qualify in pharmacy.

The PRESIDENT: He has been keeping open shop for many years as an apothecary and pharmaceutical chemist, and on inquiry we found that he had no qualification but that of a surgeon.

Mr. WELLS: He admits that he passed no examination in pharmacy.

On the motion of Mr. WELLS the letter of Mr. Kinslagh was referred to the Law Committee.

POISONOUS PATENT MEDICINES.

A letter was read from Messrs. Alexander & Co., wholesale druggists, enumerating several articles and inquiring whether these might be sold by an unregistered person.

The PRESIDENT: In reference to this letter the Registrar by my directions wrote to the Pharmaceutical Society of England, and the reply of that Society is to the effect that each case there is considered on its own merits. I think that in the case of these patent medicines, the composition of which is unknown, it is very dangerous for grocers and general merchants to engage in the sale of them. Such business properly belongs to the pharmaceutical chemist and chemist and druggist. It is not for us to define what articles we may or may not take action against parties for the sale of; but it should be understood that if any unauthorised person breaks the law by selling any of these articles that contain scheduled poisons, he is liable to a prosecution, and that is the course we intend to take.

Mr. HODGSON: It is also the course adopted by the English Society.

Mr. WELLS: Any clear-headed man who reads the Poisons Act can have no difficulty in understanding how he is to act.

Mr. BOYD: The difficulty is as to patent medicines the composition of which is not generally known.

The PRESIDENT: I don't think patent medicines are things grocers should keep.

Mr. WELLS: According to the law as settled in England they are liable for selling any patent medicine that contains poison.

Professor TICHBORNE: Chlorodyne is, I believe, largely sold by grocers.

Mr. BEGGS: In Dalkey you can get chlorodyne from grocers and hardware men.

Mr. WELLS: I think we should print and advertise cautions on the subject.

The PRESIDENT: We do not give any opinion as to what the articles mentioned in Messrs. Alexander's letter contain; but grocers selling patent medicines should make sure that they do not contain any of the scheduled poisons.

MISCELLANEOUS CORRESPONDENCE.

Dr. John McMichael, a licentiate of the Apothecaries Hall, wrote requesting to be registered as a pharmaceutical chemist.—Agreed to.

Mr. Charles J. Johnson wrote proposing Mr. D. J. McGrath, of Carlow, as a member of the Society.

Mr. BOYD seconded the nomination.

A letter from Mr. R. L. Thompson, L.P.S.I., wrote expressing regret that the Council had not taken the final step in relation to licentiates of the Society being allowed to hold Poor-law appointments.

Mr. GRINDLEY: We have already done our best in reference to the matter.

On the suggestion of Mr. WELLS it was agreed that the Registrar should write to the Local Government Board asking them whether they had come to any decision on the subject.

A circular letter was received drawing the attention of the Council to the fact of the retirement of Professor Fluckiger, of Strasburg, from his position in the University there, and inviting the Council to join in a testimonial to him in the

form of a medal and the establishment of a Fluckiger foundation, in recognition of his services to pharmaceutical, chemical, and cognate sciences.

Professor TICHBORNE remarked that Professor Fluckiger was a most eminent man, and had written several important works, but the Council could only act as individuals in the matter.

Mr. J. Cowan, of Welshpool, North Wales, wrote asking if the Council would accept certificates of his having studied for six months in the Sheffield School of Pharmacy, and three months in the Glasgow School of Pharmacy. These schools are not in the list recognised by the Society.

The Registrar was directed to reply that the Council could not go outside their present list of schools.

A donation was received from the Pharmacy Board of Victoria of a copy of their report for 1891. Thanks were voted to the donors.

APOTHECARIES AS PHARMACEUTICAL CHEMISTS.

The PRESIDENT moved, pursuant to notice—

That Regulation II. (Finance), at page 109 of the Calendar for 1892, be put under a separate heading—viz., "Apothecaries," with the addition proposed by Mr. Wells at the Council meeting of November 4, 1891, and adopted. The regulation to read thus:—"The fee for a licentiate of the Apothecaries' Hall of Ireland to be registered as a pharmaceutical chemist shall be three guineas; but such apothecary shall not be registered unless he shall give evidence to the satisfaction of the Council that he has served a *bond fide* engagement for a term of four years, as apprentice or assistant, with and in the sole employment of one or more pharmaceutical chemists or apothecaries keeping open shop.

The Council should under no circumstances allow an apothecary to be registered unless he had passed through the course indicated by this resolution.

Mr. WELLS seconded the motion, which passed unanimously.

THE SOCIETY AND THE UNIVERSITY.

The motion of Dr. BURNES, that the Society should present an address of congratulation to the University of Dublin on its tercentenary, was seconded by Mr. BOYD. The committee appointed to make arrangements consisted of the President, Dr. Burnes, and Mr. Boyd.

Reports from the examiners at the Registered Druggist examinations in Dublin and Belfast were laid on the table.

REGISTERED DRUGGISTS' EXAMINATION.

The PRESIDENT said it appeared from these that there were 11 candidates in Dublin, of whom 7 passed. He was present at the examination, which was very carefully conducted. At the Belfast examination there were 8 candidates, all of whom passed.

ELECTION OF ASSOCIATES.

The following were nominated for election as Associate Druggists:—Proposed by Mr. W. J. McNeight, A.D., and seconded by Mr. William F. Moore, A.D.: Mr. James McSwiney, R.D., 61 Lower Dorset Street, Dublin; and Mr. Thomas Sheridan, C. & D., Watergate Street, Navan.

The following were elected Associate Druggists:—Proposed by the President and seconded by Mr. W. F. Moore, A.D.: Mr. George Cooney, C. & D, Cross Street, Kells; Mr. Edmund Pelin, C. & D., Edenderry. Proposed by Mr. Merrin and seconded by Mr. Beggs: Mr. Isaac T. Smallman, C. & D., 52 Kenilworth Square, co. Dublin. Proposed by Mr. Wells and seconded by the President: Mr. Samnel McKiuncy.

The Council then adjourned.

PRELIMINARY EXAMINATION.

Passed candidates:—Messrs. L. H. Grubb, P. J. Liston, W. Phelan, P. Coghlan, G. A. Scott, H. Hunt, W. Gibson, S. B. Webb, Miss Ada S. Wyatt. Six were rejected.

PHARMACEUTICAL LICENCE EXAMINATION.

Passed candidates:—Messrs. W. Redpath (J. B. Alister = H. C. Rowe), C. A. Wray, E. J. Sewell, R. H. Armour, W. D. O'Regan, S. S. Hall, A. R. Lester. Two were rejected.

Pharmaceutical Society of Great Britain.

PRELIMINARY EXAMINATION.

THE following are the questions given on Tuesday, April 12.

LATIN.

(From 11 A.M. to 12.30 P.M.)

I. For all candidates. Translate into Latin:—

1. The father does not always praise his children.
2. Shall the wicked sons of the king be praised?
3. I know not what to say or do.
4. An orator ought to speak with a clear voice.
5. Calling all his men together, he said they must fight or die.

II. Translate into English either A (Caesar) or B (Virgil).

(Candidates must not attempt both Authors.)

A. CAESAR.

1. Hic pagus unus, quum domo exisset, patrum nostrorum memoria, Lucium Cassium consulum interfecerat, et ejus exercitum sub jugum miserat. Ita, sive casu sive consilio deorum immortalium, quae pars civitatis Helvetiae insignem calamitatem Populo Romano intulerat, ea princeps poenas persolvit. Qua in re Caesar non solum publicas, sed etiam privatas injurias ultus est, quod ejus soceri Lucii Pisonis nuntium, Lucium Pisonem legatum, Tigurini eodem proelio, quo Cassium, interfecerant.

2. Futurum esse paucis annis, uti omnes ex Galliae finibus pellerentur, atque omnes Germani Rhenum transirent; neque enim conferendum esse Gallicam cum Germanorum agro, neque hanc consuetudinem victus cum illa comparandam. Ariovistum autem, ut semel Gallorum copias proelio vicerit, quod proelium factum sit ad Magetobriam, superbe et crudeliter imperare, obsides nobilissimi cujusque liberos poscere, et in eos omnia exempla cruciatusque edere, si qua res non ad nutum aut ad voluntatem ejus facta sit.

Grammatical Questions.—For those only who take Caesar.

1. Decline in the singular *hic unus pagus*, in the plural *ea princeps* (Par. 1).
2. Give the first person singular of the present indicative of all verbs in the perfect tense in Paragraphs 1 and 2.
3. Write in Latin—17, 56, 103, 19th, 38th, 200th, four a-piece.
4. Distinguish between *is* and *ille*; *qui* and *quis*; *alius* and *alter*.

B. VIRGIL.

1. Sic Venus; at Veneris contra sic filius orsus;
Nulla tuarum audita mihi, neque visa sororum,
O—quam te memorem?—Virgo; namque haud tibi vultus
Mortalis, nec vox hominem sonat. O Dea certe!
An Phoebe soror? an Nympharum sanguinis una?
Sis felix, nostrumque loves, quaecumque, laborem,
Et quo sub coelo tandem, quibus orbis in oris
Jactemur, docens; ignari hominumque locorumque
Erramus, vento huc et vastis fluctibus acti.

2. Hic templum Junoni ingens Sidonia Dido
Condebat, donis opulentum et numino Divae;
Aerea cui praeibibus surgebant limina, nexaeque
Aere trabes, foribus cardo stridebat aënis.
Hoc primum in luco nova res oblata timorem
Lenit; hic primum Aeneas sperare salutem
Ausus, et afflictis melius confidere rebus.

Grammatical Questions.—For those only who take Virgil.

1. Decline in the singular *templum ingens*, in the plural *nova res* (Par. 2).
2. Give the first person singular of the present indicative of all the verbs in Paragraph 1.
3. Write in Latin—17, 56, 103, 19th, 38th, 200th, four a-piece.
4. Distinguish between *is* and *ille*; *qui* and *quis*; *alius* and *alter*.

ARITHMETIC.

(From 12.30 P.M. to 2 P.M.)

[The working of these questions, as well as the answers, must be written out in full.]

1. If, in a division sum, the divisor is eight times, and the quotient seven times, the remainder, what is the dividend when the remainder is 452?
2. The carriage of a parcel of goods, weighing 1 ton 8 cwt. 2 qrs., cost £21. 14s.; what will be the charge of four other parcels, each weighing 17 cwt. 3 qrs. 7 lbs.?

3. Simplify $\frac{17}{\frac{1}{2} + \frac{1}{3} + \frac{2}{8} + \frac{5}{12}} - \frac{7\frac{1}{2}}{3\frac{3}{4}}$

4. Reduce 3 rds. 7 po. 28 yds. 2 ft. 36 ins. to the fraction of 1 ac. 2 po. 31 yds. 27 ft. 36 ins.

5. Find the value of

$$.003 \text{ of } 1\text{ l. } 5\text{ s.} + .069 \text{ of } 5\text{ l.} - .8 \text{ of } 2\text{ s. } 3\text{ d.}$$

6. A man can dig 35 mètres in length of ground of a certain width in $2\frac{1}{2}$ days; in how many days will he be able to dig 31 mètres 50 centim. of the same description of ground of four times the width?

7. The receipts of a company average 522l. 12s. on a week-day, and half that sum on a Sunday, and their weekly expenses are 1,396l. 19s.; if, at the end of a year, a dividend of 5 per cent. be declared on their capital, 2,000,000l., how much can they carry to their reserve fund?

ENGLISH.

(From 3 P.M. to 4.30 P.M.)

1. Mention four words that can do duty for two or more parts of speech, and write sentences in illustration.

2. Analyse:—

I would not enter on my list of friends
(Though graced with polished manners and fine sense,
Yet wanting sensibility) the man
Who needlessly sets foot upon a worm.

3. Parse fully the words in italics in the following sentence:—

There heard we, *halting* in the shade,
Fling from a convent-tower,
A harp, *that* trueful prelude made
To a voice of thrilling power.

4. In the following passage supply the necessary capital letters, and put in the stops and inverted commas where necessary:—all of a sudden a door opens and a young woman pale and with haggard eyes makes towards us and cries out I am french save me it was a parisian milliner a bright idea came into my head and i thought we might turn this meeting to account do you know where the bridge is i said certainly well show us the way what in the midst of this fire i am dying of fright and came to ask you to let me have some soldiers to defend my house

5. (*This must be attempted by every candidate.*) Write a short biography of some distinguished statesman or writer of the present century; or, Give an outline of the reign of one of the Stuart sovereigns.

A FEARFUL RATE OF MORTALITY occurs in patent medicines. We have the authority of the *Pharmaceutical Era* for saying that out of 5,000 different articles put on the market yearly less than 100 survive.

NOT a hundred miles from Brixton Station is to be seen the announcement, immediately under Dr. ———, surgeon, physician, apothecary, &c.—

TOOTH GOT OUT
ONE SHILLING
WHILE YOU WAIT

Could not the learned doctor devise some means by which heads could be left in the morning and called for at night?—thus demonstrating the saying of "losing one's head."

NEW COMPANIES.

ULSTER SALT COMPANY (LIMITED).—Registered in Scotland. Capital, 35,000*l.*, divided into 2,000 7 per cent. preference and 5,000 ordinary shares of 5*l.* each. Object: To acquire the mining and other rights and the leasehold of the Salt-mine Syndicate, near Carrickfergus, Connty Antrim, with the whole buildings, machinery, and plant, and to carry on the business of miners, salt workers, manufacturers, and refiners.

ANGLO-AMERICAN GOLD CURE COMPANY (LIMITED).—Capital, 10,000*l.*, in 1*l.* shares. Objects: To purchase the medical discovery or preparation known as "The American Gold Cure," and to make, use, and vend the same, &c. The first subscribers are:—W. M. Jones, The Gladwyns, Putney Hill, gentleman; F. A. Monroe, The Gladwyns, Putney Hill, gentleman; Annie M. Teede, The Gladwyns, gentlewoman; W. A. Bennet, 91 Queen Street, E.C., surveyor; T. J. Sapio, 129 Liverpool Road, Islington, gentleman; E. D. Steed, 44 Wedmore Street, Upper Holloway, gentleman; and C. H. Gorringer, 5 Furnivals Inn, Holborn, solicitor. Registered without articles of association. Office: 90 and 91 Queen Street, Cheapside, London.

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY (LIMITED).—Objects: To protect, support, and safeguard the character and interests of qualified medical and dental practitioners. For the purposes of registration the company is declared to consist of twenty members, with an individual liability in the event of the winding-up of the company of 1*l.* The subscribers to the memorandum of association are: Jonathan Hutchinson, 15 Cavendish Square, W., surgeon; G. A. Heron, 57 Harley Street, W., physician; H. Radcliffe Crocker, 121, Harley Street, physician; Andrew Clark, 71 Harley Street, surgeon; W. Bruce Clarke, 46 Harley Street, surgeon; T. Colcott Fox, 14 Harley Street, physician; and G. A. Critchett, 21 Harley Street, surgeon. Registered office: 13 Royal Avenue, Sloane Square, S.W.

JOHANNIS COMPANY (LIMITED).—Capital, 50,000*l.*, in 10*l.* shares. Objects: To carry on business as owners, concessionaires, or lessees of mineral springs, importers, exporters, manufacturers of, and dealers in all kinds of mineral and aerated waters, bottle-makers, bottlers, licensed victuallers, brewers, &c. The first subscribers (who take one share each) are:—F. Henland, 1 Southampton Street, Bloomsbury Square; A. Rea, 69 Talford Road, Camberwell; E. Patrick, 60 Lebanon Gardens, Wandsworth; C. E. Mace, Cliff View, Sutton, Surrey; A. Amey, 25 Beaucherc Road, Hammersmith; R. E. Holdem, 109 Albion Road, Dalston; C. E. Emery, 47 Albert Street, Kennington Park Road, S.E. There shall be not less than three nor more than twelve directors. Qualification, 2,500*l.* Remuneration, 300*l.* per annum.

THOMAS C. STEEDMAN (LIMITED).—Capital, 5,000*l.*, in 2*l.* shares. Objects: To carry on the businesses of chemists, druggists, drysalter, oil and colourmen, dealers in pharmaceutical, medicinal, and chemical preparations, electrical, chemical, surgical, and scientific apparatus, &c. The first subscribers (who take one share each) are:—J. Middleton, 19 & 20 Blackfriar Gate, Hull, merchant; T. H. Haller, 26 Scale Lane, Hull, accountant; M. Waller, 56 Lowgate, Hull, printer; T. C. Steedman, New Walk, Beverley, druggist; M. Suddaly, 12 Salisbury Gardens, Hull, bookkeeper; J. E. Train, 21 Beverley Road, Hull, joiner, &c.; R. B. A. Kirkby, 11 Trinity House Lane, Hull, auctioneer. There shall not be more than seven nor less than five directors, and the first are to be named by the above subscribers. Remuneration to be determined by the company in general meeting. Registered office: 11 Trinity House Lane, Hull.

J. WILSON & COMPANY (LIMITED).—Capital 10,000*l.*, in 2*l.* shares. Objects: To acquire the business now carried on by J. Wilson at the Anti-Stiff Works, Green Walk, London, S.E., and generally to carry on business as manufacturers of and dealers in chemical and other preparations. The first subscribers (who take one share each) are:—J. W. Wilson, Green Walk, S.E., pharmaceutical chemist; C. Marshall, Green Walk, currier; G. N. Martin, 81 Chancery Lane, artist; J. H. Lloyd, 7 Poultry, E.C., chemist; P. Hardy, 27 Alfred Place, W.C., diamond broker; H. E. Russell,

88 Chalk Farm Road, N.W., chemist; and G. Last, 9 Arlington Road, N.W., traveller. There shall not be not less than two nor more than five directors. The first are J. Wilson and C. Marshall. Qualification not specified. Remuneration: J. Wilson (as managing director), 350*l.* per annum. Registered office: Green Walk, London, S.E.

ROCHDALE AND OLDHAM MINERAL WATER AND BOTTLING COMPANY (LIMITED).—Capital, 6,000*l.*, in 5*l.* shares. Objects: To acquire the undertaking of a mineral-water manufacturer hitherto carried on by E. Shoesmith, under the style of the Rochdale Mineral-water Company, at Walker Street, Rochdale, and to carry on and extend the same in all its branches. The first subscribers are: A. Tabiner, Gale Inn, Castleton, beer-seller, 10 shares; F. Snthers, Milnrow Road, Rochdale, innkeeper, 15 shares; T. Kenyon, Hare Street, Rochdale, grocer, &c., 10 shares; J. Whitlaw, Ashfield Road, Rochdale, beer-retailer, 10 shares; E. Shoesmith, Walker Street, Rochdale, soda-water manufacturer, 200 shares; E. Cheetham, Whitworth Road, Rochdale, newsagent, 10 shares; and J. Handley, Railway Hotel, Rochdale, publican, 15 shares. There shall be not less than three nor more than seven directors. The first are the first signatories to the memorandum of association. Qualification not specified. Remuneration, 6*s.* each for each board attendance. Registered office: Walker Street, Rochdale.

MARRIAGE.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

BLYTON — EDMONDSON.—April 6, at the Strangeways Unitarian Free Church, by the Rev. Alexander Gordon, M.A., Thomas Bage, eldest son of John Blyton, of Cheetham Hill, to Eleanor (Nellie), third daughter of the late John Beeby Edmondson, of Crumpsall.

DEATH.

BALL.—On March 23, George Vincent Ball, pharmaceutical chemist, Banbury. Aged 68.

BARKER.—On March 23, Joseph Barker, chemist and druggist, Yarmonth. Aged 64.

BARKER.—On April 6, at Hayward's Heath Asylum, J. Barker, chemist and phrenologist, of Trafalgar Street, Brighton. Aged 42.

BUCHANAN.—On Saturday the funeral took place at Maidstone of Mr. Friend William Buchannan, who for many years carried on the business of a chemist in Week Street, Maidstone, but had latterly lived at Clapton. The deceased, who was very much respected, was 77 years of age.

COLEMAN.—On March 6, Silas Coleman, chemist and druggist, Cinderford. Aged 43.

EDGAR.—On March 20, Frederick George Edgar, chemist and druggist, Petworth. Aged 34.

GOLDSMITH.—On March 24, William Goldsmith, chemist and druggist, Hull. Aged 71.

KATHRO.—On February 8, James Kathro, chemist and druggist, Mitcheldean. Aged 75.

MOULE.—On April 2, at Codicote, Herts, John Monle, F.S.A., chemist. Aged 76.

PARISH.—On March 20, William Parish, chemist and druggist, Cleator Moor. Aged 33.

PIMM.—On March 22, Hervey Arthur Pimm, chemist and druggist, late of Torquay. Aged 31.

RADFORD.—On March 27, at 10 Park Avenue, Montreal, Canada, Isiah Cann Radford, chemist, formerly of Devonport. Aged 77.

SMYTH.—On April 9, T. Smyth, of Narberth. Aged 59. Mr. Smyth at one time carried on a large and extensive business as a chemist, grocer, and wine and spirit merchant, and owned a number of celebrated racehorses. The deceased for some years was parish warden and a member of the school board, and acted for many years as secretary of the Narberth Agricultural Society.

REFRACTOMETERS FOR LIQUIDS.

By F. W. WARRICK, F.C.S.

At a recent meeting of the Chemists' Assistants' Association Mr. Davies and others called attention to the fact that the determination of the refractive indices of the various substances used in medicine which lend themselves to a measuring of the same should be undertaken, and it is possible that the refractive index of a given product would be found to be so far removed from those of other substances which sometimes accompany it accidentally or fraudulently as to become a ready index of its purity—if, indeed, a ready means of determining its refractive power were at hand. When in Paris some little time back I was shown by my friend—M. Charles Féry, of the Ecole de Physique et de Chimie—a refractometer recently invented by him which seems to answer its purpose admirably. At the same time he showed and explained to me various other refractometers which are sold in France, and it occurred to me that a short description of these various instruments would be of interest at the present time.

The conditions which a good and useful refractometer should fulfil are the following, and, bearing them in mind, an opinion can be formed of the merits of the various instruments under review:—

1. It should be convenient to use.
2. It should be rapid and exact.
3. It should require no adjustment requiring scientific knowledge or experimental ability on the part of the operator.
4. The result should be arrived at without the use of a complicated formula or a long calculation.
5. The result should also be the true index of refraction, and not an empirical number on an arbitrary scale.

F. Jean's oleo-refractometer, alluded to by Mr. Davies, certainly does not fulfil the last condition laid down. It is,

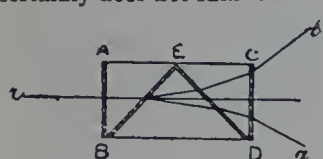


Fig. 1.

indeed, hardly a refractometer, but rather a refractoscope; it gives an empirical measure of the difference of refractive powers of two liquids. The essential feature of this apparatus is a vessel, ABCD (fig. 1), the two ends of which are closed by pieces of glass, AB, CD, with parallel faces; within this vessel is a hollow glass prism, BED. If the same liquid is put into the hollow prism BED as that which surrounds it, a ray of light, i , will not be deflected at all; if, however, the prism contains a more refractive liquid, the ray will pass out of the system towards a , if less refractive towards b . The vessel is situated between a source of light and a telescope, which latter moves on a graduated arc; the telescope is adjusted by the operator, and the position it occupies when the light reaches him is read on the scale. The liquid used wherewith the various fat oils are to be compared is a secret preparation, and, even if the objection that this may become rancid and changed as regards its refractive power is overlooked, it is not a very satisfactory or scientific standard.

A true refractometer is Bertrand's. In this instrument the principle of total reflection is made use of. To recall this

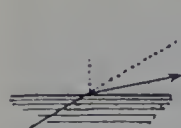


Fig. 2.

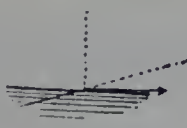


Fig. 3.



Fig. 4.

principle briefly: When a ray of light passes from a dense to a less dense medium it is deflected from the normal—that is, it runs nearer the surface common to the two when it issues than it did before (fig. 2). A ray forming an angle with the surface before issuing equal to the angle giving the measure of the amount it will be pushed down, as it were—will, on issuing, run along the line joining the two substances, and will not pass into the less dense medium (fig. 3); the angle which this ray in the denser medium then makes with the normal is called the "critical" angle. All rays making with the normal an angle equal to or larger than the critical

angle are reflected from the surface, and would not reach an eye situated in the less dense medium (fig. 4).

The critical angle for a ray of light passing from one substance to another being determined, if the refractive index of either is known, that of the other can be readily calculated.

To determine the critical angle, M. Bertrand's instrument consists of a hemisphere of glass, of which the refractive index is higher than that of any substance to be measured. The hemisphere, O, is fixed in a brass tube, T, and receives light through a piece of smoked glass, ab (fig. 5). If the body A or a drop of liquid to be studied is placed under the lens O, all the oblique rays, D_1, D_2 , which form an angle to the normal to the flat surface of O equal to or greater than the critical angle for the two substances (the glass and the liquid under examination), are reflected from that surface and light up a micrometer, MN, at D_3, D_4 ; less oblique rays, such as E, are not reflected. A lens, L, enables the operator to see how far the micrometer shows light towards M, which in the figure is at D_1 , and the point D_3 gives the measure of the critical

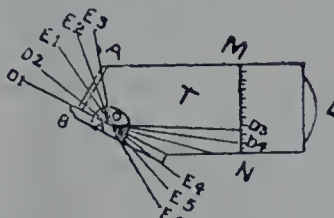


Fig. 5.

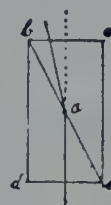


Fig. 6.



Fig. 7.

angle. It is really the ray D_1 , running along the surface, and being reflected to D_3 , which gives the measure of the critical angle.

This apparatus gives a result within 1 per cent. of error. The lens of highly refractive glass becomes altered, however,

by contact with the various substances operated on; again, it is not easy to determine the temperature of the body under examination, and the refractive indices of liquids vary considerably with this factor. Based on the same principle is Abbe's refractometer (fig. 8). In Güngör's "Lehrbuch der angewandten Optik in der Chemie," there is a description of this instrument. The accompanying sketches show the main features of it. Two glass prisms, bce and bdc , of shape and position as depicted (fig. 6), have the faces which are opposite the right angle of each in juxtaposition; one of these faces is, however, slightly concave, so that a drop of liquid placed between them is retained there; the prisms are encased in metal to allow of the insertion of the liquid under examination, and to prevent light entering otherwise than in the direction indicated in the figure. The case containing the prisms can revolve round an axis which in the drawing would be at a and at right angles to this paper. The amount of revolution can be read on a scale. Usually with instruments of this kind the light passes through a collimator before entering the prisms, which renders the rays parallel. The collimator is dispensed with here, however, and the only adjunct to the prisms is the telescope. The operator turns the case containing the wedges of glass with the liquid between them until he sees one-half of the field he is observing become obscured (fig. 9).



Fig. 8.



Fig. 9.

If parallel rays of light were used, it is clear that when the prisms arrive at such a position that the rays form the critical angle with the normal to the surface of the liquid they will be reflected and will not reach the eye (fig. 7), and the position of the pointer could then be read on the scale.

The refractive index of a substance can be determined from other formulae besides that of the critical angle. When, for instance, the principal focus and the radii of curvature of a lens are known, the refractive index of the substance of

which the lens is formed can be determined mathematically. Upon this fact M. Pillschikoff's refractometer is based. The principal part of it is a hollow plano-convex lens of glass (σ) destined to contain the liquid to be examined. This is placed between light issuing from a slit and rendered parallel and a plate of smoked glass which can be moved to or from the hollow lens, and the movement of which is measured on a scale. When the image of the slit appears

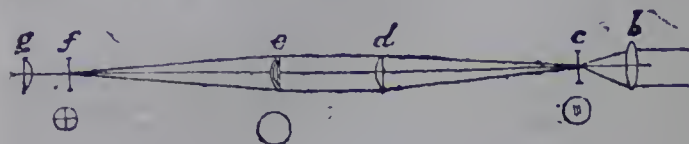


Fig. 10.

clearest on the smoked glass, the smoked glass is then at the principal focus, and the position of it is denoted on the scale by a number. Upon referring to a table accompanying the instrument, the index of refraction of the substance contained in the hollow lens is found against this number. The drawback to this instrument is that it is not easy to tell when the smoked glass is at the principal focus, as a slight movement one way or the other does not affect the brightness of the image.

Another refractometer is that of M. A. Dupré, of the Municipal Laboratory of Paris. The essential part of this apparatus consists of two prisms of the same angle but placed in contrary directions (fig. 11). The one, A, is hollow; the other, B, is solid glass. The double prism is so placed that the ray strikes A B at right angles. The angle e is determined

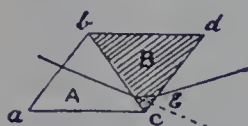


Fig. 11.

by adjusting the prisms until the light reaches the eye through a stationary telescope after passing through A (which contains the liquid under examination) and B; the position of the prisms is read on a scale, and the index of refraction of the substance is found on reference to a table.

The cost of this piece of apparatus is very high on account of difficulties of construction, and, indeed, for scientific purposes it is said to have no advantage over the classical method of the goniometer.

In some of the instruments above described, the temperature of the substance operated on cannot be readily ascertained, and this is a point which should be readily ascertainable; in all of them the units of the scale are not in direct proportion to the refractive power; they are all, where not faulty, expensive. M. Féry's (fig. 12), the latest

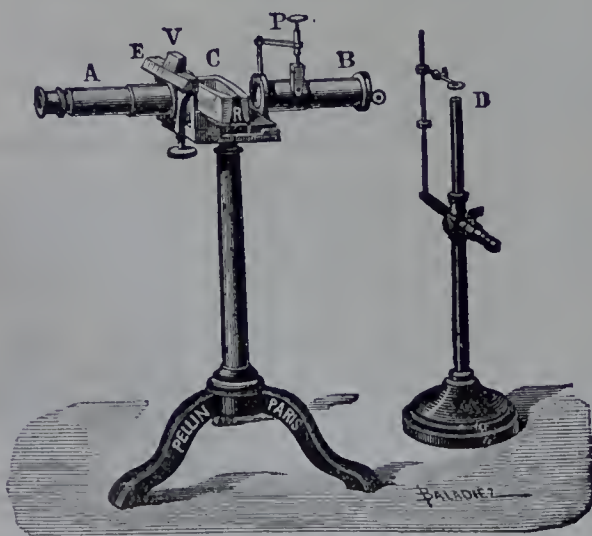


Fig. 12.

invented, allows the temperature of the substance under observation to be readily determined, the scale varies directly with the true scale of refraction, it is cheap, and its use requires no skill in manipulation on the part of the operator.

As this instrument has never been described in England before, and, moreover, as its construction is ingenious and interesting, I will speak of it more fully than I have of the

others, avoiding, however, the use of optical formulæ, which are a bugbear to those who can look back some years to the time when they tackled sines and cosines, tangents and cotangents, either with pleasure or for examinational purposes, but which would allow of the demonstration of the principles underlying the action of the instrument in a line or two.

The essential and novel piece of M. Féry's refractometer is a hollow prism of glass in which the substance to be examined is placed, bounded on its sides by two similarly shaped

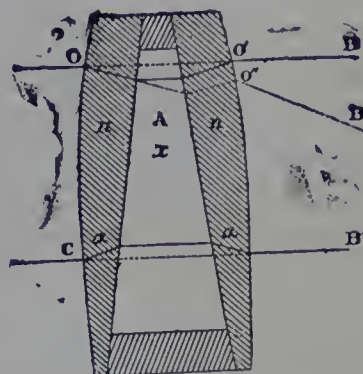


fig. 13.

slips of glass cut out of a plano-convex lens, and which will be understood by a glance at fig. 13.

This piece is placed in the instrument between a collimator, giving a pencil of parallel rays, and a telescope in such a way that an imaginary plane bisecting the hollow prism lengthwise is at right angles to the rays of light, and that it can be moved backwards and forwards in the direction of its length. A means is provided so that the position of the prism can be read on a scale.

To understand the action of this hollow prism it is necessary to recall the fact that the deviation d , produced by a small prism of angle A , is equal to $(n-1)A$, where n is the index of refraction of the substance forming the prism. If another prism, of angle a and refractive index m , placed against the former as in fig 14, annuls the bending action of the former, then the deviation caused by the second, and which is $a(m-1)$, is equal to that caused by the first—viz., $A(n-1)$. If of these two prisms thus placed, and annulling one another's action, the angles are known and the refractive index of one is known, then it is a simple matter to calculate the refractive index of the other. In other words, if in the formula $A(n-1) = a(m-1)$, A , m , and a are known, n is known also.

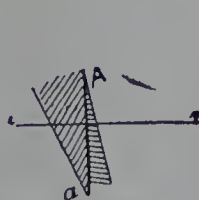


Fig. 14.

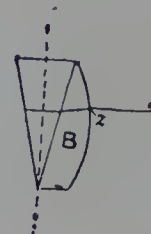


Fig. 15.



Fig. 16.

The above is the principle employed in M. Féry's hollow prism. Here we have a prism of liquid, of a definite known angle, bounded on both sides by prisms of glass of known refractive index.

To simplify the explanation it is best to think of the action of one of the prisms only (see fig. 15).

It is hardly exact to call the plate of glass B a prism, yet it can be regarded as a prism the angle of which varies at every point, in the same manner as a circle can be regarded as a polygon (fig. 16).

It is clear, bearing in mind that the refractive effect of the glass at any one point depends upon the angle which the curved surface (more correctly the tangent) at that point makes with the plane surface, that the refractive effect of the prism varies throughout its length. If the refractive action of this glass at some one point is equal to that produced by the prism of liquid, the two together, being placed as they

are in opposite directions, will have no refractive action on light at that point, and a ray of light entering at that point will issue parallel to its original direction. The second prism of glass simply brings the ray back to its original direction, as it must do, seeing that it is exactly similar and opposite to the first, and receives the ray under exactly the same angle at which the first parted with it, and that the whole system is placed so that the bisecting line is at right angles to the original direction of the rays. If, then, the angle of the prism B at the point z can be measured, the refractive index of the liquid will be known.

But the simplicity of this instrument hinges upon the fact that the angle at any one point (being a small angle) is directly proportional to the distance of that point from the principal axis. When the vessel is empty and is in such a position that the rays are in the direction of the principal axis, they pass through unbent and reach the eye of the observer through the telescope; this is the zero point of the scale. The liquid being poured in, the prism is moved by means of a screw, and the position noted when the image of the slit appears in a definite position in relation to two cross wires in the telescope. It will be seen that the hollow prism and wedges of glass can be made in different instruments of different angles, according to the range of refrangibility the instrument is destined to measure, in the same way that thermometers are made to command a limited range of temperature, and do their work the more accurately within those limits. A set of the prisms could be supplied with the one instrument, each having a scale corresponding.

The chemist being now in possession of a cheap and reliable refractometer, he will, no doubt, find many uses for it. Every substance has at a given temperature a definite refractive power. In a mixture of two substances such as alcohol and water, sugar and water, the refractive index is a ready indication of the proportion of each, and the refractometer would assuredly be of service to those having frequent estimations of the kind to make.

As a qualitative analyser it bids fair to take up an important position in the laboratory, and tables showing the refractive indices of various substances would be of interest.

The following list gives the indices of a few essential oils taken hurriedly; it does not pretend to any great accuracy:—

Geranium, Spanish	1.464	Petitgrain, Grasse	1.464
" " Algerian	1.478	" " American	1.465
" " Grasse	1.475	Peppermint, English white	1.469
Otto, virgin	1.467	" " black	1.462
" commercial	1.467	" " American W. F. ..	1.468
Eucalyptus Amygd.	1.484	" " " H. G. H. ..	1.470
" " Globulus	1.470	Lavender, English	1.472
Lemon, extra	1.477	" " foreign	1.466
" " snper	1.478	Santal, English	1.506
Bergamot, extra	1.472	Almonds, S.P.A.	1.544
" " snper	1.472	Juniper	1.475
Orange	1.476	Copaiba	1.490
Neroli, I.	1.473	Turpentine	1.478
" II.	1.471		

Gazette.

PARTNERSHIPS DISSOLVED.

Ambler, A. H., and Taylor, W., under the style of Ambler, Taylor & Co., Manchester, oil refiners and importers.

Crowder & Son, Barton-on-Imber, chemists, druggists, book-sellers, &c.

Hurd-Wood & Light, Leatherhead and Ashstead, physicians and surgeons.

Thomas & Bond, Plymouth, veterinary surgeons.

THE BANKRUPTCY ACTS, 1883 AND 1890.

(In London.)

ADJUDICATION.

Spencer, Robert, Birmingham, chemist.

Trade Notes.

MESSRS. R. & W. GREEFF, of Market Buildings, Mining Lane, E.C., have taken over the agency for N. Trommsdorff's chemical works in Erfurt.

MESSRS. IDRIS & Co. have received notice that the jury of the Tasmanian Exhibition have given them a special first award for their mineral waters.

MR. J. BÜSTLING, the proprietor of the Lueneburger Wax Bleaching Works, Lueneburg, Germany, has admitted Messrs. J. Büstling and Geo. Flebbe to sign for his firm by procuration.

MESSRS. NAPOLEON PRICE & Co., of Cumming Street, N., have taken City offices and sample-rooms at 164 Aldersgate Street, E.C., to which address they wish all communications to be sent in future.

MESSRS. PERKEN, SON & RAYMENT, 99 Hatton Garden, have had a letter from Dr. Henry Lansdell, author of "Through Siberia," informing them that in the frontispiece in the *Graphic* of April 2, the drowning camera on the horse's back represents an "Optimus" made by them. It accompanied me (writes Dr. Lansdell) throughout my last journey of fifty thousand miles, to heights of 18,000 feet, through temperatures sometimes many degrees below freezing, and through equatorial heat. Nevertheless I am pleased to say the apparatus suffered but little. The "Euryseope" lens also worked quite satisfactorily, and has enabled me to secure some hundreds of excellently defined negatives for lantern-slides for illustration of my lectures.

A LAB. BALLAD.

THE appended verses are quoted from "Ulula," the Manchester Grammar School magazine:—

A DRUGGIST BEWAILETH HIS UNHAPPY FLIGHT.

Come into the Chemical Lab.—

Don't you hear the electric gong?

Come into the Chemical Lab.,

You have been at your locker too long;

And there is a flavour of ancient crab,

The Ammonia-bottle is strong.

Fifty are we in the class,

Every man of us doing his best;

One chips his fingers with glass

In trying an acid test;

And Brown is making some Chlorine gas,

To the sorrow of all the rest.

There has been a most terrible smash

At Smith's place, two feet to my right;

A bottle has burst with a crash,

For the cork was a trifle too tight.

It has singed off poor Robinson's budding moustache,

And his clothes are a sorry sight.

I have tarried at least a week

At a single mysterious salt;

Where, oh where is the metal I seek?

I am weary of being at fault.

Nickel I tried last Thursday week—

It surely is not Cobalt.

What was it my master meant?

But one year in his form I'd stayed,

When, on his advice I went

To join the Science Brigade.

I hope it was not with an evil intent,—

He wished me to go, I'm afraid.

I was never much good at French

(I was next to the last in 3b);

So, after a parting wrench,

I left him, a druggist to be.

And now I play at a chemical bench

(To my modern master's glee).

DRUGS.

Registered **"SANITAS"** Trade Mark

DISINFECTANTS

AND

APPLIANCES.

PRICE LIST AND PAMPHLET ON APPLICATION.
THE SANITAS CO., LIM., BETHNAL GREEN, LONDON, E.

SHOW CARDS, 24×17 or 17×12,
Free to any address in the United Kingdom.



See first page, facing inside of front of cover, in the first issue of the month, for latest particulars.

*In Strength + Ingredients
Identical with B.P.
Miscible
Fluid
Extract of
Alkalies
not used
in production
Wright, Payman & Unwin Southwark London*

THE NEW EMBROCATIVE BALM FOR HUMAN USE.

DAY'S OIL OF THE NIGHT

1/1 and 2/9 per bottle.

WRITE FOR TERMS FRAMED TO PREVENT CUTTING.
DAY & SONS, CREWE, CHESHIRE.

MUMFORD'S FARRINGTON ROAD, LONDON, E.C.		
THE BEST THAT CAN BE PRODUCED.		
PURE CRUSHED LINSEED	18/	1 cwt. carriage paid; or ✕ 7, 14 & 28 lbs. free on rail Lond.
PURE STARCH POWDER	26/	1 cwt. carriage paid; or ✕ 7, 14 & 28 lbs. free on rail Lond.
PURE FULLER'S EARTH (Light Colour)	16/	1 cwt. carriage paid; or ✕ 7, 14 & 28 lbs. free on rail Lond.
PURE FULLER'S EARTH	14/	1 cwt. carriage paid; or ✕ 7, 14 & 28 lbs. free on rail Lond.
✕ CARRIAGE PAID ✕		
To Railway Stations within the radius of 200 miles from London, and up to 2s. to Stations beyond, on 112 lbs. and upwards of above articles.		

Mixes with Water.
Certain and Pleasant.
Not Nauseous.

MOSS'S MISCIBLE CASCARA

(REGISTERED)

"A great improvement."

"A very elegant preparation of this drug."

"Superior to anything yet introduced."

—Extracts from Letters.

See the Medical and Pharmaceutical Press.

In 1-lb. and 5-lb. bottles, through any Wholesale House, or from the only makers—

JOHN MOSS & COMPANY,
Galen Works, New Cross Road, LONDON, S.E.

SCHWEPPE'S

GOLD MEDAL TABLE WATERS

AS SUPPLIED TO THE QUEEN.
In Bottles and Patent Syphons.

51 BERNERS STREET, LONDON, W.

SOUTHALL'S ATTRACTIVE SPECIALITIES.

To bear Name and Address of Buyer.

Novelties are Constantly being Added to the Series

Sample Cases containing Dummies, and full particulars, are sent for inspection to any registered Chemist in the United Kingdom, Carriage Free both ways.

'Of exceptional merit and originality.'—Chemist and Druggist

SOUTHALL BROS. & BARCLAY, BIRMINGHAM.

*Fletcher's
Concentrated Liquors*

ARE THE CHEAPEST BECAUSE THEY ARE THE BEST.

Editorial Comments.

ENFORCING THE PHARMACY ACTS.

THE Pharmaceutical Society has seldom done a better day's work than it performed on Wednesday of last week, in demonstrating to the public and to the shop-keeping doctors of Glasgow that the Pharmacy Act is a power to be reckoned with, and that the cheap method of working a pharmaceutical

business adopted by so many ambitious but not wealthy Esculaps in that city involves a risk which must be taken into serious account. Sheriff Birnie proved a sympathetic judge, and it may be fairly assumed that if the attack thus successfully commenced is followed up, after reasonable intervals, by two or three other sorties of a similar character, pharmacy in the second city in the Empire will assume a very different position to that which it has so long held there, and that the physic-taking portion of the public will be considerably advantaged.

On this occasion nine separate prosecutions were undertaken, eight of which were successful. Five distinct establishments, where poisons had been sold by unqualified men, were marked, and on each of these the Sheriff levied a contribution which will make a serious gap in twenty pounds.

As a testimony to the usefulness of such actions, we read in the *Glasgow Evening News* of April 8 a letter signed "C. and D.," the writer of which begins by questioning whether the Pharmaceutical Society is justified in using its power as it is doing. "I am not a citizen of Glasgow," says "C. and D.," "but I profess to know a little of the Glasgow drug trade, and I say that if the Society perseveres in its present action more than half of the shops will be affected." Good. This should certainly encourage the Society to persevere. "The reason why so many druggists do not try to pass the examinations is that it really does not pay to do so." Just so; but then those gentlemen must devote their uncertified talents to the distribution of tinctures, ribbons, or margarine, and not try to reap where they have not sown. It is they, and such as they, who make it unprofitable to pass the examinations.

Another dissatisfied "Pestle" who airs his grievances in the local journals, and whose acquaintance with the Pharmacy Act is obviously very superficial, asks:—

Why, then, have the Pharmaceutical Society not prosecuted qualified medical practitioners who keep open shop for dispensing of drugs and selling poisons, in the meaning of the Act, with unqualified assistants? There are probably 200 such shops in Glasgow, and I make bold to say 75 per cent. do not keep qualified assistants. The reason is not far to seek—the Pharmaceutical Society do not want a collision with the Medical Council, who look after the medical fraternity, and who keep their eyes open when their interests are touched or their rights invaded.

It is hardly necessary to explain that the Act allows the qualified medical men to keep open shop, and that it is only by action against the unqualified assistant, or manager, or owner, whichever he may be, that some impression can be produced. "Pestle" calculates that there are 150 doctors' shops in Glasgow in which the Act is regularly broken. It is hardly likely that the raid on five will sufficiently terrify the hundred and fifty. The unqualified will be cautious for a few weeks, but the alarm will soon subside. The dose must be repeated half a dozen times in a twelvemonth if the medicine is really to effect its purpose.

The Irish Pharmaceutical Council secured less sympathy in their recent attempt to enforce their Act in Cork. The Irish Society can hardly allege that the public safety is endangered if a British pharmaceutical chemist is allowed to dispense medicines at Cork. But a statute is made to be obeyed. Before the Irish Pharmacy Act of 1875 was passed the British Society made overtures to the leaders of the reform party in Ireland offering to extend their operations to Ireland, and at one time there was a possibility of these being accepted. But that eminent Home Ruler, Sir Michael Hicks-Beach, discouraged the project, and took charge of the Bill which secured Irish pharmacy for Irish graduates. In the measure as originally drafted a system of reciprocity

was provided, but the British Society opposed this vigorously, and secured its withdrawal. It may be certainly assumed that a pharmacist with Irish qualifications only would not be allowed to practice his profession on this side of St. George's Channel, and we cannot be surprised that the Council of the Irish Society should oppose any corresponding invasion of their own domains.

THE TITLE "VETERINARY CHEMIST."

THE list below shows how stands our guarantee fund towards the defence of the right of chemists to use the description "veterinary chemist," as indicating that they deal in veterinary medicines. Our contention is that the use of this title does not imply any special qualification to practise veterinary surgery (which term covers veterinary medicine). The authorities of the Royal College of Veterinary Surgeons have threatened proceedings in at least two cases that we know of under the Veterinary Surgeons Act, and it is obvious that unless those interested stand together the question is not likely to get authoritatively settled. We have asked the College to consent to contest the point on a "special case" to be submitted to the High Court. We are still without their official answer, but we have heard that a member of their Council told an interlocutor that he thought they would not proceed. This may mean that they will not agree to our proposition, but will prefer to make their attacks where and when they please. The promises recorded below would provide money enough to argue a special case, but would not justify us in entering on an undefined lawsuit. We therefore still invite promises from parties who feel an interest in the dispute. There can be little doubt that the question will have to be legally settled some day. Promises to date are as follows:—

	£	s.	d.		£	s.	d.
Proprietors of THE CHEMIST AND DRUGGIST ..	10	10	0	G. D. ..	1	1	0
H. O., jun. ..	10	0	0	A. W. S. ..	1	1	0
M. E. C. ..	5	5	0	T. C. ..	1	1	0
W. R. H. ..	5	0	0	F. B. W. ..	0	10	6
R. H. G. ..	5	0	0	T. B. A. ..	0	10	6
B. ..	2	2	0	T. W. ..	0	10	6
S. J. C. ..	2	2	0	J. J. F. ..	0	7	6
B. & S. ..	2	2	0	C. S. R. ..	0	5	0
A. H. ..	2	0	0	G. L. C. ..	0	5	0
A. O. ..	1	1	0	H. J. N. ..	0	5	0
				A. D. ..	0	5	0

If any money is spent in law, we shall only ask each subscriber to pay his *pro rata* proportion, and before issue is actually joined we shall invite the contributors to meet for consultation. We will publish the names of contributors when the contest is over, but for the present it is considered better to give initials only.

THE WINTER'S WORK.

WHEN we come in sight of the May meetings we are entitled to suppose that the winter's work is over. It is practically so. In the provinces there remain but the winding-up of executive affairs, the reports of work done to receive, and fresh officers to appoint. There may be in some cases a desire to arrange for botanising excursions, picnics, or cricket matches, but the paper-mill has the belt thrown off, and all is silence for a while. The finishing touch, by a strange irony, is to be given on our press night by the Pharmaceutical Society, the meeting at Bloomsbury Square on Wednesday evening being one of a purely pharmaceutical character, in which the orator is to show the many wonderful things which have accumulated while the Society indulged in its study of fermentation. Special lectures are not

exactly a novel feature in the Pharmaceutical Society's programme, but on previous occasions the lectures have been by pharmaceutical specialists, and have interfered little with the time-honoured exposition of discovery and improvement in the technical operations of the calling. Those who had the privilege of listening to Professor Armstrong's lectures should be the last to say that they were not good in themselves; indeed, we might go further, and suggest that the Society should draw more freely upon its scientific relations, and, like the Society of Arts, get distinguished specialists to lecture throughout the winter on subjects allied to pharmacy. At the same time the regular evening meetings should not be disturbed, as the experience of the session has clearly demonstrated that a Society outlet for investigation reports is necessary. To the want of evening pharmaceutical meetings is probably due the circumstance that a number of important papers from the Research Laboratory were communicated to the Chemical Society, where the audiences are neither so appreciative nor so interested in pharmaceutical topics as those which gather at Bloomsbury Square. Again, the exceptionally successful session of the Chemists' Assistants' Association is partly due to the communication there of papers which in other circumstances might have been read at the Square. It is not probable that a continuation of this condition would be good for the Association. Its success must depend largely upon the social and educative element; its workers should, in the main, be the members themselves, and its objects should include the advancement of the interests of assistants rather than the care of the progress of English pharmacy, so far as that is controlled by the metropolis. That function properly belongs to the Pharmaceutical Society, and the problem presented is how to make the evening meetings more popular and valuable than they have been for several years past.

The problem appears to have been solved at the North British Branch of the Society, which has just closed a session that has had no better in all its history. The papers have been numerous, practical, and popular, and have been the means of eliciting good discussions. The result is doubtless due in a large measure to the fact that the organiser of the meetings is a pharmacist who has behind him a good committee, and the interest of local workers who have some pride in the reputation of their Branch. It is proverbial that London is innocent of pride of place, and its local reputation is not worth speaking about. But much could be done to make the meetings popular if the Evening Meetings Committee were to take London into its confidence. London must be the chief source of the material for the Square meetings, and perhaps the best way of discovering the material would be through the help of the divisional secretaries. There should be a reversion to the old order of things, when publication was a matter secondary to communication, and when interchange of ideas and the exhibition of fresh notions made the lecture-theatre a centre of attraction. There was then one guiding mind, it is true, and that is as necessary as ever. Who is it to be?

Provincial meetings, apart from those in Edinburgh and of Assistants' Associations, have been confined to Manchester, Liverpool, Birmingham, and Sheffield. The Manchester Association has had a profitable, if not brilliant, session, which on all hands is reckoned to be the best for some years, and the reason is that trade interests have balked largely in the proceedings. So also in Liverpool, where technical papers have been supplemented by subjects directly concerned with the business element of pharmacy. Even pharmacy law has been discussed in the provinces, and that, too, in several towns where regular organisation is at a discount. In this respect the winter is notable, and it is a

healthy sign, for which there is room for development. While the governing body of pharmacy has its locus in London, the most expeditious means of educating it up to the aspirations and mode of country trade is through local meetings. The immediate local success which has followed such meetings in a few large and small towns ought to infuse some life into the many lethargic bodies whose existence only becomes known at the meetings of the Pharmaceutical Conference. That fact makes it hazardous to write the obituary notices which the winter of 1891-92 almost renders imperative; for here and there were wont to be Associations whose voice was heard in the land, but which now only serve to point the moral of lethargic inactivity. If British pharmacy were to be judged by their standard, or even by the standard of the past winter as a whole, it would seem a sorry sight. There are good points about the session, but these are chiefly the result of individual enterprise, a branch in Edinburgh and a junior society in London dividing the honours between them.

COMMENTARY.

WANTS TO AMEND THE PHARMACY ACT.—The *Medical Press* of this week has an editorial on "The Need for Amendment of the Pharmacy Act." The recent discussion at the Manchester Pharmaceutical Association has apparently inspired it, but our contemporary is woefully at sea regarding the provisions of the Pharmacy Act and the powers of the Pharmaceutical Society. "It seems difficult to understand," says the *Press*, "how, after a chemist has been proved at a coroner's inquest to have supplied a suicide with poison, the Society does not step in and order a prosecution for the illegal selling of drugs under the Act." But there is no illegality here, and the value of the rest of the article is considerably discounted by the writer's unfamiliarity with recent pharmaceutical history. Still, many will sympathise with his aspirations in such passages as the following:—

It is absurd to suppose that the Pharmaceutical Society has not had any clear cases of the irregular sale of poisons before it against which a successful prosecution could be undertaken. . . . The burden of collecting evidence against those who are suspected of acting illegally should fall upon the Society itself. It should be sufficient to indicate that a suspicion exists of illegal actions, and the Society, through its officers, should then adopt measures to satisfy itself of the reality or not of the allegation. . . . Doubtless a few prosecutions of erring chemists would have a most salutary effect upon the rest. It might be, however, to the purpose of the leading pharmacists to found an association upon the same lines as those of the Medical Defence Union, and for their self-protection, and with a view to the maintenance of trade discipline, undertake the prosecution of those who act illegally in the trade by evading the law. . . . It must obviously be to the advantage of the trade that the Act should be enforced, and it seems to us that the chemists themselves have, to a large extent, the remedy in their own hands. By a properly-organised combination of the trade actively engaged in carrying out the clauses of the Act relating to the sale of poisons, it is possible that much good might result. [The defunct Trade Association did all that.—*Ed. U. & D.*] At all events, however this may be, some radical measures are absolutely called for in the interests of the public generally to prevent the facilities which at present exist for the purchase of poisons. It is an evil which calls for severe repressive measures, and after due warning no mercy should be shown those who abuse the responsibility placed in their hands, which is followed by the propagation of so much harm-doing.

FRENCH CONSULS ON AMBERGRIS.—The French foreign and colonial departments have circularised their agents abroad for the purpose of gathering information concerning the collection of ambergris and the trade in that substance, of which France is one of the principal consumers and which, at present, she buys principally in London. The replies to the circular have recently been published under the auspices of the French Government. They are not likely to be of

much use to the French perfumers and traders who want to emancipate themselves from the London market, and should be rather discouraging to those who look to salaried Government officers for help in preserving or extending business. Some of the consuls have evidently no idea of the nature of ambergris. One of them, in Burmah, writes about "ambergris-mines, situated in Upper Burmah, in the neighbourhood of the jet-mines, but the precise locality of which is unknown owing to the unexplored condition of the country." The exploitation of these ambergris-deposits, we are told, is in the hands of the Chinese. The consul in Calcutta says that ambergris is imported there from Zanzibar in Arab vessels, and that it is believed to come from the African East Coast. The Madras man writes that it is imported from Turkey, but in such small quantities that no separate record is kept of it. From Pondichery an official writes that small quantities are imported there from Southern India. The French representatives in Australasia and the West Indies do not appear to have been consulted.

SQUIRE'S "COMPANION" IN CHINESE.—A few months ago we mentioned that Dr. Hunter, a gentleman of the American Presbyterian mission who is stationed in China had translated Squire's "Companion to the British Pharmacopoeia" into the Chinese language. Dr. Hunter, who is taking a vacation in the United States, now writes to us from Morgantown, Western Virginia that his object in translating the book was for use in the Mission dispensaries by Chinese students and assistants of the foreign physician. "The Chinese," writes Dr. Hunter, "made good dispensers. Every medical missionary has to rely upon them for his dispensing. Hitherto each Chinese assistant has had to translate formulæ as he had need of them. Now his assistants can work by my translations, as in a druggist's shop at home. Many of us make our own tinctures, pills, &c., because we cannot afford to import them ready made. After translating Squire, and using it with my helpers for a few years, I decided to publish it, and after revising to date I did so. The fourteenth edition forms the basis of the translation. My Chinese version is in use in most of the mission dispensaries throughout China, of which there are over 100 in all. The index is made up both in Chinese and in Latin."

PHARMACY AMONGST THE AZTECS.—The average nineteenth-century pharmacist has a good opinion of himself when he looks back upon the centuries of his predecessors, and contemplates the messes that used to go by the name of medicine. But a trifle farther back we find that amongst those ancient civilised races whose memory seems swallowed up in antiquity, things pharmaceutical were not so crude and elementary as one would think. The ancient Mexicans, or Aztecs, had some admirable ideas and regulations in regard to pharmacy. From a lecture on the subject recently delivered before the Philadelphia College of Pharmacy Alumni Association we gather that Aztec students of pharmacy were required to master the history of plants, their geographical distribution, their distinctive characters, and their properties, which study was followed by thorough instruction in the preparation of the various simple and officinal medicaments. The physicians alone were allowed to prepare the more elaborate compounds. Pharmacy was practised only by thoroughly competent graduates, their places of business being in the public markets. Such places or drug-stores were called "panamacoyan," or "pacalli," and were under the supervision of regular pharmacists who received the appellation of "pachichihuani," "panamacani," or "papiani." There were also herb dealers, whose object was simply to sell alleged medicinal plants, not officinal or

recognised by the physicians and apothecaries. These herb dealers were styled "paximatqui," or "xiuhiximatqui." Those intending to follow the profession of physician were obliged to pursue a course in medical and surgical pathology, therapeutics, botany, pharmacy, and clinical instruction. But the Aztecs excelled above all in ensuring that the preliminary knowledge of young pharmacists and physicians should be of the most thorough description. That was hundreds of years ago. British pharmacists have not been on the same track a quarter of a century yet.

LIQUORICE-JUICE.—We notice in a German contemporary some analytical results obtained by examining the liquorice-juices found in the German market. The results are interesting as bringing out the glycyrrhizin content of different juices, but the figures are obviously intended to bring out the value of a particular brand. We therefore, only give the results generally. The process by which the glycyrrhizin was estimated was as follows: 5 grams of the powdered sample was dissolved in 50 c.c. of lukewarm distilled water in a 100 c.c. flask, 2 c.c. of solution of ammonia added, and the flask filled up with spirit. The mixture was shaken occasionally during a day, then filtered and washed with 24-per-cent. spirit until the washings were of a faint yellow colour. The filtrate was then evaporated to a third, and when cold the glycyrrhizin was precipitated with dilute sulphuric acid, collected on a small filter, washed with 30 c.c., and dried at 100° C. Working in this way it was found that a home-made sample of inspissated extract yielded 23 per cent. of glycyrrhizin, only 3.9 per cent. of matter insoluble in water, and 12.8 per cent. of moisture. A few of the best samples of liquorice in the market contain over 19 per cent. of glycyrrhizin, but anything between 10 and 20 of that constituent, and about 10 of water, with 20 to 30 of insoluble matter, is more the standard of commercial liquorice.

BURLINGTON HOUSE ECHOES.

THE fair sex is comparatively a stranger at the Chemical Society. It may be that the north section of the quadrangle has more than its share of woman's wiles, and that the compensating law of Nature has set the masculine element on the southern side to strike the balance. At any rate, the average attendance of ladies has not got beyond the third place of decimals. The figure for the present session is understood to be 0.0038 (uncorr.), a fellow being taken as unity. The lady who attended last Thursday night was apparently interested in a paper on

The Separation of Arsenic, Antimony, and Tin.

This was by Dr. J. Clark, of Glasgow. The method recommended is a modification of known processes, and consists in adding ferric chloride to the mixture of the sulphides in a still. The still having been fitted with a safety funnel, hydrochloric acid in excess is poured in and distillation commenced, the distillate being collected in a little water. In this way As_2S_3 is volatilised completely, and is collected, washed with water, alcohol, and carbon bisulphide, dried, and weighed. To the residue, which contains all the antimony and tin, oxalic acid is added and sulphuretted hydrogen passed through in the cold. Sb_2S_3 is precipitated, and is collected, &c., in the same way as the As_2S_3 . The filtrate from this contains ferric chloride and oxalic acid, as well as tin, and the first thing to do is to get rid of the acid by boiling with permanganate. While this is done some of the ferric salt is reduced, and this has to be oxidised either by adding a sufficiency of ferrous sulphate or a strip of bright iron. Finally, sulphuretted hydrogen is added to

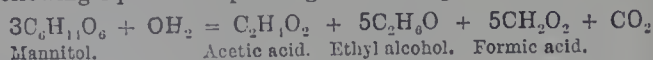
the solution, the stannic sulphide collected, &c., as before. Dr. Clark said, and proved, that the process gives very accurate results. We have, of course, omitted the details, but the principles are essentially as stated. After Dr. Clark came a man who was wont to be well known in pharmaceutical circles, Mr. W. A. Shenstone, of Bristol University College. His paper was on

Platinous Chloride and its Use as a Source of Chlorine.

Mr. C. R. Beck had assisted him in the work, which was a continuation of a research already reported on to the British Association. On heating the salt chlorine is evolved, but the authors find that it is always contaminated with hydrochloric acid, a little oxygen, and nitrogen probably. Trying various specimens of the salt, they found that what preliminary tests showed to be the worst specimen (it was "made in Germany") gave the best chlorine, but at the best this only contained 98 to 99 per cent. of Cl. They accordingly have come to the conclusion that (1) "platinous chloride" is not pure, but contains a basic substance; (2) chlorine from any source is not to be trusted without examination; and (3) the best chlorine is the liquefied sort: it contains 99.5 per cent. of Cl. As a supplement to his paper, Mr. Shenstone showed the meeting a peculiar phenomenon which is exhibited when a tube of chlorine is opened under mercury. Immediately the sealed tube is broken the tube appears to be filled with mercury, but it is not so, merely a mirror-layer of the quicksilver being deposited on the glass. This occurs whether the chlorine is wet or dry, and the phenomenon is analogous to what takes place in the case of a tube of ozonised air. One thinks immediately of a practical application of the experiment, but by the time that the tube got to the hack benches, black patches of a mercurial compound had begun to mar the prettiness of the silver mirror thus destroying immediate hopes of commercial application.

The Bacillus Aceticus

is a micro-organism which Professor Percy Frankland has been studying for some time. He has found that it has the property of splitting up polyhydric alcohols, glycerine being one of them. He now came forward with a paper fully describing the action of the micro-organism on mannitol and dextrose. He finds that mannitol is split up into acetic acid, ethylic alcohol, formic acid and carbonic acid, the following equation expressing the decomposition:—



This is the initial decomposition, the formic acid being largely decomposed into carbon dioxide and water; but, strange to say, no etherification takes place, there being no trace whatever of ethyl acetate. Dextrose is split up into the same bodies, but in different proportions.

The Preparation of Glycollic Acid

was the subject of the last communication read. Dr. Collie was the author, and he very briefly stated the results of his investigation. The acid is generally made by boiling monochloroacetic acid for twenty-four hours; but this is troublesome, and the by-products are objectionable. What he does is to boil potassium glycolate with water, when the acid is obtained in a few hours, and to the extent of 90 per cent. of the theoretical quantity. Dr. Perkin, the chairman, remarked that the sodium salt had been used similarly, but it is expensive.

Two papers which were on the programme were not read. These were on "Johnsonite, a New Egyptian Mineral, and the Possible Presence therein of a New Element—Masrium," by H. D. Richmond and Dr. Husseinoff; and "The Action of Silicon Tetrachloride on Substituted Phenylamines," by Professor Emerson Reynolds.

THE PROSECUTIONS AT GLASGOW.

LOCAL OPINIONS.

FROM inquiries made by the correspondent of THE CHEMIST AND DRUGGIST, it would appear that opinion is pretty much divided amongst Glasgow chemists concerning the action of the Pharmaceutical Society last week in prosecuting a number of unqualified sellers of poisons. One leading chemist in the city refused to be interviewed on the subject. He said that he was

SO UTTERLY DISGUSTED

with the action of the Council of the Pharmaceutical Society that he had for a number of years been keeping outside the Society altogether, and would not interfere with its affairs in any way. The next gentleman called upon—the head of another important firm of druggists—was a little more communicative. He cordially approved of the action of the Society, and believed that it would result in much good to the trade as a whole. "There is a strong feeling," he remarked, "amongst the chemists in this city in favour of the Pharmaceutical Society

PUTTING DOWN UNQUALIFIED PROPRIETORS

of shops, but not in favour of prosecuting an assistant in a shop, the proprietor of which is a *bona fide* qualified chemist." He added that "there is in Glasgow a lot of other shops being carried on under precisely the same conditions as those against which convictions were obtained last week, and the sooner they are put a stop to it will be the better for all parties." Questioned as to the probable effect which the prosecutions would have upon such shops as he referred to, the reply was: "There are only three courses open to the proprietors of these places—either to shut up shop altogether, to stop selling poisons, or to employ a qualified man to do the scheduled poisons part of the business. I anticipate that the immediate effect of the prosecutions will be

A GREATER DEMAND FOR QUALIFIED MEN,

because if they wish to keep their places open they must now have some one able to dispense prescriptions and sell poisons." In the course of this interview another gentleman connected with the establishment drew attention to

A POINT IN THE PHARMACY ACT

which, he observed, had never been clearly settled. One of the clauses in the 17th section provides that an unqualified assistant may make a sale of poison on behalf of a qualified proprietor, while according to the 15th section such an assistant can be prosecuted for the sale. The point was an important one, he thought, and it would be interesting to have a decision upon it. The head of the firm conceded the importance of the point alluded to, but remarked that one conviction against an unqualified man selling under a qualified employer had been obtained, and indicated as much that in his opinion the 17th section would form no protection against the 15th. The next visit paid was to

MR. KINNINMONT,

in South Portland Street. Although he is the local secretary of the Pharmaceutical Society in Glasgow, Mr. Kinninmont had not heard anything about the intended action of the Society until the blow was struck, and it therefore came upon him somewhat as a surprise. He believes that the prosecutions were thoroughly justified, because they were directed against persons who had wilfully and systematically violated the Act. The accused parties could not plead ignorance nor that they had not had warning, for the Society had repeatedly threatened during the past three years to make a descent upon such traders, so that they thus continued to sell poisons with their eyes thoroughly open to their danger. Personally, Mr. Kinninmont said, he had no idea before these prosecutions were raised that

THE EVIL WAS SO WIDE-SPREAD

as it seems to be. He was perfectly surprised to know that there are so many of this class of shops in the city; he

would not have believed it before. But it now appeared that one district of Glasgow particularly had become a perfect hive of those so-called chemists and druggists within the last three years. "I have no idea," he said, in the course of the conversation, "what the immediate effect of the prosecutions will be, only I believe it will deter doctors from lending their names to unqualified men for the purpose of keeping open drug-shops." Asked if he thought this action of the Society would be likely to hurt the shop-keeping doctors, he replied, "I cannot see that it will. I maintain that doctors can keep open shop as long as they like, and keep any kind of men they choose, and that the

PHARMACEUTICAL SOCIETY HAS NO POWER TO INTERFERE

with them; and the Society will soon find out if it raises a case to test the point. It would be preposterous for the Government to interfere with *bona-fide* doctors' shops. There were doctors' shops long before there were chemists and druggists proper. Why, I can remember when the doctors had the whole drug-trade of Glasgow in their own hands; when there were no chemists at all in the city. And even in Edinburgh there was

NOTHING BUT DOCTORS' SHOPS

until not very long ago. Even yet in some places the public would not get any medicines at all were it not for the doctors' drug-shops. Out in Pollokshaws, for instance, there is not a single druggist's shop that I know of, and the public are entirely dependent upon the doctors for their drugs. Looking at it in that light, I say it would be an unfair and a ridiculous thing to interfere with *bona-fide* doctors, and I don't suppose the Society will act so foolishly as to do anything of the kind." Referring to

DR. LEES' CASE,

Mr. Kinninmont said that Dr. Lees did not take the proper precautions that morally he ought to have taken, but which, legally, he was not bound to take. He believed, so uncertain was the law, that, if Dr. Lees appealed against the judgment of Sheriff Birnie giving expenses against him, the chances were ten to one that the Sheriff's ruling would be overturned.

Having obtained the opinions of representative chemists, our correspondent next took means to ascertain

WHAT THE SHOP-KEEPING DOCTORS THINK

of the prosecutions. Inquiries in this direction have shown that a bitter feeling exists—shared equally by the medical men themselves and by their shop-assistants, the latter for the most part unqualified men—against the Society for setting the law in motion. In certain quarters of the city the proprietors of small drug-shops have really got a scare. Some are even refusing to sell poisons. Our representative has the best authority for stating that on the day following the prosecution of local chemists a gentleman went into several doctors' shops for a pennyworth of landannm, and in every case the assistant refused to serve him, and he had to go to the shop of a registered chemist before he got the poison supplied to him. One of the most representative shop-keeping doctors in Glasgow is

DR. WILLIAM CHALMERS,

of Queen Street, who freely expressed his views on the subject. As to the parties brought before the Sheriff and convicted, he had nothing to plead on their behalf. The cases were peculiar ones, and they were justly dealt with. At the same time, his opinion was that the prosecutions would have a very hurtful effect upon the trade. There were many young men who were thoroughly qualified to dispense, but who yet had not the legal qualification. He understood that the examinations which pharmaceutical students had to go through were very hard to pass, and that fact deterred many young men from attempting them. In reply to a question, the doctor said that he would not go the length of saying that all unqualified assistants could be entrusted with the sale of poisons. "Of course," he added, "if the Pharmaceutical Society insist upon qualified men being kept in shops, chemists will just have to get qualified assistants. But they are very hard to get. From what I can learn I think there is

NOT A SUFFICIENT NUMBER OF QUALIFIED MEN

to take the place of the unqualified men, if it has to come to throwing these out of their situations. According to a statement that appeared in one of the newspapers the other night, there are two hundred shops in the city nearly all with unqualified men, and to prosecute these, or even displace them, would be an undoubted hardship. I believe the effect will be that the chemists will employ more qualified men than formerly. The greatest and most hurtful effect would be on the doctors. They would be compelled, perhaps, to employ qualified men. I think, however, that

THE PRIVY COUNCIL CAN EXEMPT DOCTORS

from being interfered with. I cannot speak positively on that point; but I have instructed a lawyer to go thoroughly into the Acts, and see if there is no way whereby we can dispense medicines and sell poisons without coming under the jurisdiction of the Pharmaceutical Society. My medical qualification enables me, I think, to keep open shop. It would be a very funny thing if the Pharmacy Act could interfere with me now, after having for a whole lifetime been engaged in this way."

Our representative also took

THE OPINION OF AN UNQUALIFIED ASSISTANT,

of thirteen years' standing, on the prosecutions. This gentleman is employed in a doctor's shop. His view is that it would not pay the doctors to keep qualified men. Personally, he knew nothing about the theories of pharmacy which assistants are supposed to have a knowledge of before going up for examination, but he had what he considered better, a practical knowledge of his business. As for working up for the examination now, "he would rather turn policeman than do anything of the kind."

Legal Reports

SEQUAH'S IMITATORS.

At the Glamorganshire Assizes at Cardiff, on April 9, before Mr. Justice Charles, Edward Baxter Hodley, aged 32, described as a traveller, was indicted for embezzling the sum of 15s., the money of his employer, David James, of Ystrad.

Mr. A. Lewis prosecuted, and Mr. S. F. Evans, M.P., appeared for the prisoner.

The Prosecutor, in his evidence, said he was a patent-medicine vendor at Ton-y-pandy. In October last he received a communication from the prisoner, in consequence of which he went to Merthyr to see him. Prisoner told him he was hard up, and asked witness if he could find him some employment, to which he replied in the affirmative. Prisoner had previously been employed by Sequah. He afterwards came to Ton-y-pandy to see witness, and an arrangement was come to by which witness agreed to employ prisoner to lecture upon and sell his (prosecutor's) medicines. Prisoner was to receive 3l a week for his services, and witness was to pay all expenses. It was further agreed that prisoner should make a start at Treorchy, and that on the Saturday he should come over to witness's residence at Ton-y-pandy, and account to him for all moneys received. Witness had a carriage similar to Sequah's, which he sent up to Treorchy for the use of the prisoner. There was also a band, which prisoner had before witness saw him. Witness was to pay for the band. Witness did not pay prisoner anything during the time he was at Treorchy, but he lent him 4l on the Friday after he started. He commenced to sell on the Thursday, which was two days behind the day agreed upon; but prisoner could not make a start before, as there happened to be a warrant out for his arrest for rent. He supplied prisoner with medicines and oils. They were in bottles, and stamped as patent medicines. He sent out two gross with the carriage. On the following Friday he supplied prisoner with two more gross. In the following week four more gross were sent up; and on the last Saturday he was at Treorchy prisoner sent a man down for four more gross. That made altogether twelve gross. All the bottles were 1s. each. Prisoner did not come down to Ton-y-pandy on the Sunday, as arranged, and witness went to the Pentre Hotel, Ystrad, where he had been staying, and then discovered that he had left. He

made inquiries, and on the Monday he caused a warrant to be issued for prisoner's arrest.

His Lordship: What was the value of the twelve gross of bottles?

Mr. Lewis: 867. 8s.

His Lordship: What quantity was left in stock?

Witness: I found one gross and ten bottles left—154 altogether.

His Lordship: Were all the others gone?

Witness: Yes, my Lord.

His Lordship: What a liking for your medicine the Treorchy people must have had. (Laughter.)

Continuing his evidence, witness said prisoner never accounted to him for any of the sales he had made, nor had he paid him any money. Witness had a trading name, that of "Danix."

At the request of his Lordship, some of the medicine-bottles were produced. They were labelled "Danix's Flower of the Wilderness," and warranted to cure indigestion.

His Lordship: I notice they are declared to act "with the speed of electricity." (Laughter.)

Mr. Lewis: This, I see, is a remedy for impaired sight.

His Lordship: Is that meant to be taken inside? (Laughter.)

Witness: No, my Lord; outside. This is an oil.

Cross-examined by Mr. Evans, witness said he had been selling these medicines for about two years. He had patented them under the name of "Danix." Prisoner formerly sold the patent medicines of Sequah, and witness was in his employ, being one of the troop. He had not the letter he received from the prisoner. He destroyed it before the warrant was taken out for prisoner's arrest. He had no particular reason for destroying it. Prisoner did not in that letter propose to carry on business together. The band was prisoner's. Witness never made arrangements to take the band into his employment. Prisoner had nine men altogether—seven bandsmen, a lamp-man, and a groom. Witness hired horses at Ton-y-pandy to take the carriage to Treorchy, but these did not remain there. Prisoner had to arrange for fresh horses with which to parade the town; had also to get rings and trappings, such as brass rods and curtains. He had also to get some instruments for the band. Witness admitted he had these instruments, and had advertised them for sale in the *Era*, as if they were his own. Prisoner's wages were to be paid weekly, and at the time he left he would be entitled to 6*l.*, less one day's wages. He was to pay the band out of the takings. The amount they were to receive was 8*l.* per week. He believed prisoner had paid about 12*l.* to the band. He had also paid the man and the groom. They had decided to bring the business to a close on the Monday, as prisoner had told him the previous week the band were going to leave him. He did not say why they were going to leave.

Mr. Evans: Did not he say he was not taking expenses, the weather was so bad, and as the band were leaving, the waggon had better be put away, and he would go to Durham?

Witness: I don't remember him saying that, but I won't deny that he didn't.

His Lordship (interposing) suggested to the prosecuting counsel that it was very unlikely he would be able to make anything out of the case. There was nothing as yet to show that there had been any fraudulent misappropriation. It was perfectly plain that this lecturer had had a great deal to do, and the prosecution must show that after payment of all the expenses prisoner had a balance to hand over.

Mr. Lewis: It was his duty to account for all medicines sold.

His Lordship: True; but on the other hand he appears to have been given unlimited latitude. He was to have had 3*l.* a week wages, but he never had it. It looks to me more like a case for the county court than for a criminal court.

Mr. Lewis: I cannot supplement the evidence.

His Lordship, addressing the jury, asked if they thought they could find the prisoner guilty of embezzlement on this sort of evidence. Do not let them suppose that he wanted to stop the case. If they would like to hear more of it, let them say so, and he would go on.

The Foreman of the Jury: The jury is of opinion, my Lord, that it is a case for the county court.

His Lordship: That is a verdict of not guilty, then. Let the prisoner be discharged.

APPRENTICES TO COMPANIES.

AT the Newcastle (Staffs) County Court, before his Honour Judge Jordan, last week, Albert Edward Johnson (through his next friend, James Johnson, a commission agent, of Stoke) sought to recover from the Central Drug Company, (Limited), Mr. D. H. Oxen and Mr. G. W. Spraggett, the managing directors of the company, 50*l.* damages for breach of covenant, or in the alternative for wrongful dismissal.

Mr. R. W. Day appeared for the plaintiff, and Mr. Sproston represented the company and Mr. Oxen.

According to Mr. Day's opening statement, the Central Drug Company was a joint-stock company, carrying on the business of chemists and druggists in Newcastle, and up to quite recently in Hanley. The defendants (Mr. Oxen and Mr. Spraggett) are, or were, managing directors of the company, and the whole business was almost entirely in their hands. On January 1, 1890, the plaintiff was apprenticed. Mr. Spraggett executed the indenture as managing director.

In reply to the Judge, Mr. Day said the indenture was not under the seal of the company. He believed that at the time the company was not registered.

Mr. Sproston: It was not.

Mr. Day said the company, after its formation, continued to employ the plaintiff, who was bound for four years.

His Honour: The contract was on Spraggett's part, and on that of no one else. You have no case against anyone else except Mr. Spraggett upon this contract.

Mr. Day pointed out that not very long after the indenture was entered into Mr. Oxen and Mr. Spraggett, with others, constituted this limited liability company, and registered it under the Joint-stock Companies Act. The company took over the assets.

His Honour: But this is a personal contract to teach.

Mr. Day: But surely a limited liability company could not enter into an indenture of apprenticeship.

His Honour: A company might under their common seal. Where they are employers of labour, it is one of the incidents of labour that they may take apprentices. I see no liability by this company. They are strangers to this contract, as much as I am.

Mr. Day: The company have practically adopted the contract; they have paid wages.

His Honour: Yes; but they could only make themselves liable under seal. They have no rights. You have asked me a question. Let me ask you one. Could the company sue you?

Mr. Day: I should say so, as a servant.

His Honour: You say that to me as judge, but with a mental reservation; you don't believe it.

Mr. Day: Let me call your attention to one fact. Mr. G. W. Spraggett, in this indenture, contracts apparently on behalf of the company.

His Honour: He cannot do it, and he does not profess to do. He describes himself as "G. W. Spraggett, of Blyth Bridge, and managing director for the Central Drug Company."

Mr. Day asked for judgment against Mr. Spraggett.

His Honour: If you have any case against him I will hear it.

Mr. Sproston intimated that the summons had not been served on Mr. Spraggett, who was in America.

His Honour nonsuited the plaintiff, with costs, and granted a successive summons against Mr. Spraggett.

THE CONTRACT WAS TOO WIDE.

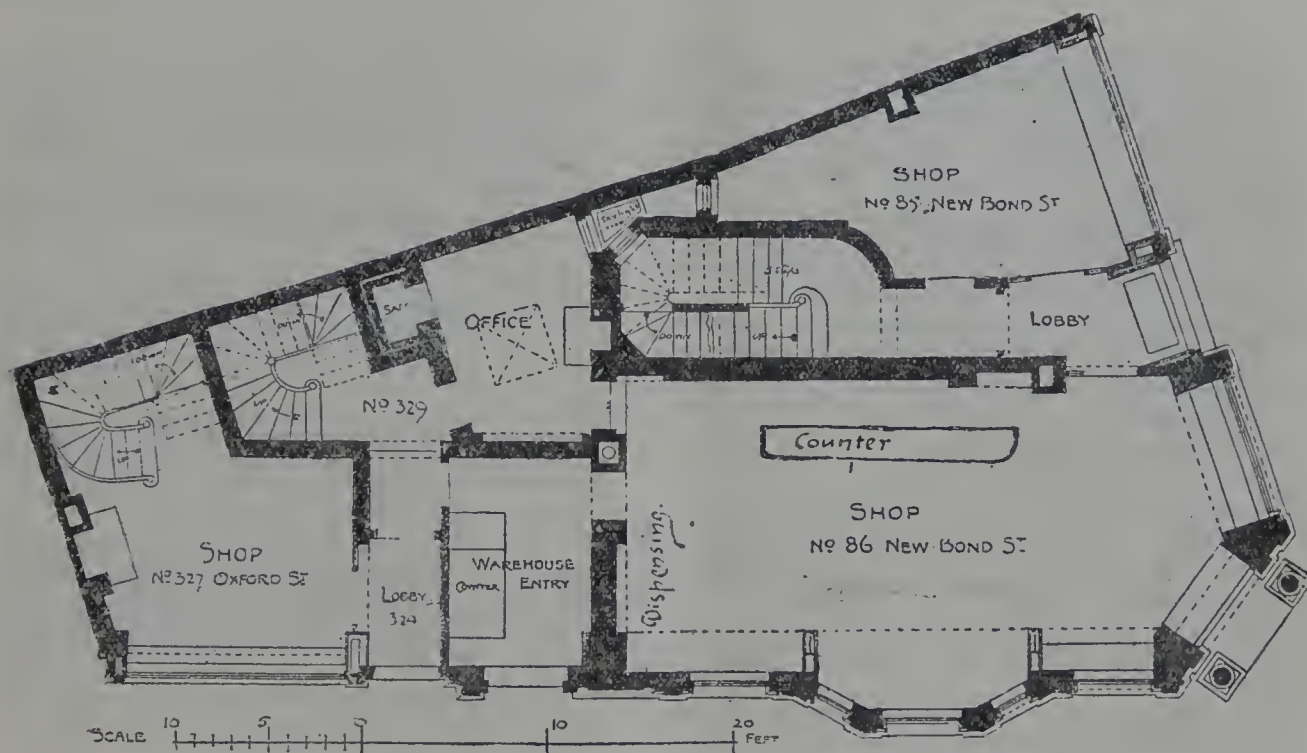
IN the Court of Appeal, on Tuesday, Lords Justices Lindley, Bowen, and Kay upheld the judgment of Mr. Justice Kekewich, in the case of *Perls v. Saalfeld*. The plaintiff carries on business under the style of Martin, Perls & Co. at 62 and 63 Basinghall Street, as an importer of oils and drugs, and agent for the sale of machinery, perfumery, and drugs for the manufacture of soap. He also has the business of the Riviera Perfumery Company in Basinghall Street. The plaintiff sought to restrain Mr. Saalfeld, who was formerly in his employ, under an agreement, from carrying on a similar business within a certain radius of the Royal Exchange, London. The Court decided that the terms of the agreement would prevent the defendant from carrying on any business whatever within the limits without consent, and could not be enforced as it was too wide.

A WEST-END PHARMACY.

A FEW months ago a representative of THE CHEMIST AND DRUGGIST spent a pleasant quarter-of-an-hour in the new pharmacy which Messrs. Corbyn, Stacey & Co. have had erected at the corner of Oxford Street and New Bond Street, W., which doubtless many a chemist has looked upon from the outside, if not from the interior, with feelings of admiration. For the building is a very handsome one. According to the *Building News* (from which we reproduce the ground plan), the design is of the Renaissance period, and trusts to proportion rather than elaboration for effect. The street frontages are entirely of stone, the ground floor of red Mansfield, and the upper portion of Portland stone, the Mansard roofs being covered with grey slates from the Sedan quarries. The shop-doors, sashes, and fittings are of Italian walnut wood. The corner entrance is surmounted by an oriel

odds and ends. Very little is shown in the windows themselves, which are chiefly notable for the small pear-shaped show carboys standing on the sill. On the drug side of the pharmacy behind the counter we find what in other circumstances are pilasters, divisions of sufficient width to form poison-cupboards, the mirrored fronts of which give a pleasing background. The labels of the bottles, as in all Corbyn shops, are placed longitudinally. The dispensing-counter is placed at the east end of the shop and is a model of convenience. Further accommodation for dispensing is provided in what is called the "warehouse entry," and in connection with this matter we may say that there is a very perfect system of checking carried out. The number of nice little arrangements for storage which have been introduced it would be difficult to adequately describe, and the effect of the fitting of the shop as a whole is so good that it deserves to rank as a standard in this respect.

The basement is used for stock and other purposes, such as bottle-washing and water-heating. The whole of the



window, and the frontages have also bay windows introduced, to break the monotony of the fronts. The building comprises the corner shop, with private office attached and basement under, having living apartments for the assistants over the adjoining shop in Oxford Street, and is occupied by Messrs. Corbyn & Co. There is also a shop with frontage to New Bond Street.

So far the architectural part. It was a happy idea of Messrs. Corbyn, Stacey & Co. to entrust the designing of the fittings to the gentleman who planned the building—Mr. T. Harris, F.R.I.B.A. He has produced one of the most handsome pharmacies in the West of London. The woodwork is all walnut dull-polished, any glass employed for cupboards or mirrors being bevelled plate. There is a carriage entrance to the pharmacy from New Bond Street, but the handsome doorway at the corner is the more popular. The presence of two doorways is, however, a peculiarity, and it has been taken advantage of in a novel way, the counter at this end being boxed in, as it were, with a door connecting it with the wall. This gives a handsome finish to the counter, and at the same time ensures the privacy of the manager's desk. The bay window is an uncommon feature in a pharmacy, but an excellent one, for it has enabled the architect to provide a quiet retreat for people who have to wait a few minutes. Upon a table here is a selection of current literature. The wall-spaces between the windows are fitted with small glazed cupboards, or show-cases, for perfumes and various

premises, we may say, are heated with hot water. We have no doubt that Mr. Frank A. Rogers, the manager of the pharmacy, will be as courteous to any pharmaceutical caller as he was to our representative.

THERE IS AN OLD ACT OF PARLIAMENT which we are burdened with owing to the wars that our forefathers indulged in. It was imposed at a time when nearly every commodity was taxed, so medicine could not escape. We mean the Medicine-stamp Act. Those who framed the statute did not, perhaps, only aim at increasing the revenue; their object was to keep charlatanism within bounds. The tax is now so productive that it is not likely to be repealed until those Utopian days when the land will yield her increase to the people; and it is so all-embracing that until within the last few years it was exceedingly difficult for chemists to tell when their cough-mixtures, corn-cures, &c., should be stamped or not. This difficulty no longer exists. Two or three years since Mr. E. N. Alpe, of the solicitor's department, Somerset House, wrote for us a "Handy Book" on the subject, from which can be gathered the mind of the authorities. There is nothing else to go by, and all who value their peace of mind and their pockets should have a copy of it in their shop-library. Price 2s. 6d., or 2s. 9d. post free. It can be got from any wholesale house.

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, within one month of the date of this journal give notice in duplicate, at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1857, of opposition to such registration." All communications to be addressed to H. Reader Lack, Esq., Comptroller General, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C.

(From the "*Trade Marks Journal*," March 23, 1892.)

"THE MAWSON CELERITAS PLATE," and representation of flying Mercury, on black label, showing sun half-way above the horizon, and wording; for gelatino-bromide dry plates. By Mawson & Swan, Mosley Street, Newcastle-on-Tyne. The essential particular is the device, the exclusive use of the added matter being disclaimed. 161,968.

"THE MONARCH," and representation of king with crown and sceptre, and wording on oblong box; for oils for veterinary purposes, disinfectants, vermin-destroyers, &c. By The Lever Wholesale Grocery Company (Limited), Market Street, Wigan. The essential particular is the device only, the exclusive use of added matter being disclaimed. 161,059.

Sketch of a horse's and a cow's heads, a swallow and a greyhound; for medicines for horses, cattle, sheep, dogs, &c. By R. W. Martin, trading as Bob Martin, Crown Chambers, Nevill Street, Southport. 162,313.

Symbolical sketch of St. Peter with child at feet; for chemical substances used in medicine and pharmacy. By Holman, Ham & Co., 74 High Street, Exeter. The essential particular is the device, the exclusive use of added matter being disclaimed. 161,667.

"KODAR"; for a medicine for human use. By J. H. Heap, 4 Brunswick Street, Hanley. 161,706.

"ANTIPANG," and signature; for a medicinal preparation for the cure of toothache. By P. C. James, 38 Aldenham Street, St. Pancras, London. The essential particular is the signature, the exclusive use of added matter being disclaimed. 161,825.

"MERSANO"; for medicinal wines and beverages. By Forbes, Maxwell & Company (Limited), Holburn Buildings, Aberdeen. 162,170.

Signature of applicant; for a remedy for asthma. By Edward Millhouse, 26 New Road, Gravesend. 162,496.

"LIENSEEN"; for a medicinal compound for external human use. By A. R. Weir, 369 Crown Street, Glasgow. 162,607.

"LANCORA"; for medicinal preparations for human use. By Mather & Sons, 27 Windle Street, St. Helens. 162,630.

"CRICKLITE"; for toilet soap. By S. Clarke, Pyramid Works, Child's Hill, London. 162,374.

(From the "*Trade Marks Journal*," March 30, 1892.)

"LECETIC"; for fertiliser or manure. By Isa L. Williams, 55 Rocky Lane, Liverpool. 161,899.

"BUTTRESS'S POLO OINTMENT," sketch of polo-player on pony, and other wording; for an ointment for animals. By H. Buttress & Co., 6 Honnslow Barrack Road, Hounslow. The essential particular is the device, the exclusive use of added matter being disclaimed. 162,423.

Signature; for cattle and horse medicines. By A. Mitchell and J. J. Mitchell, trading as Mitchell & Co., Dursley, Gloucester. 162,705.

"THE GOLDEN NUGGET OINTMENT," and device of nuggets and wording on circular label; for an ointment for piles. By Maria Taylor, Grove House, Sale. The essential particulars are the device of the nuggets, and the words "Golden Nugget," the exclusive use of added matter being disclaimed. 162,441.

"NICKENE"; for a medicated article for rheumatism, bruises, cuts, &c. By Elizabeth Nichols, 31 Melsonby Terrace, Chorley Old Road, Bolton. 162,898.

"BOLTIK"; for medicine for internal human use. By C. A. Bolton, 40 Carlton Street, Nottingham. 163,021.

Sketch of Mr. Pickwick; for chemical substances used in medicine and pharmacy. By W. G. Dunn, trading as W. G. Dunn & Co., 18 Katherine Street, Croydon. 163,110.

"FURFELT," and signature; for chest-protectors. By Solport Brothers, Shaftesbury Street, London, N. The essential particular is the signature, the exclusive use of added matter being disclaimed. 160,642.

"SEA QUEEN, PHOSTASALT," and sketch of female form floating on waves, and wording, on black label; for a table-salt. By W. Stevens, 11 Lone Walk, Denmark Hill, S.E. The essential particulars are the device and the words "Sea Queen, Phostasalt," the exclusive right of added matter being disclaimed. 159,358.

(From the "*Trade Marks Journal*," April 7, 1892.)

"A. T. MORSE & Co." as signature; for distemper paints and varnishes. By A. T. Morse, trading as A. T. Morse & Co., Ward Road, High Street, Stratford, London. 161,992.

"MILLS & Co." as signature; for horse-powders and cattle-condiments (medicinal). By Mills & Co., 22 Cank Street, Leicester. 159,923.

"CASTLE," and sketch of a castle; for chemical substances used for agricultural, veterinary, and sanitary purposes. By Wilkinson & Simpson, 24 Newgate Street, Newcastle-on-Tyne. The essential particular is the device, the exclusive use of the added matter being disclaimed.

"THE LIGHTSHIP BRAND," and sketch of lightship; for chemical substances used in medicine and pharmacy. By Williams & Co., Salthouse Lane, Hull. The essential particular is the device, the exclusive use of added matter being disclaimed. 160,532.

"JUBILATE," and picture of lady in evening dress holding package in hands; for a cure for chilblains. By E. F. Spickernell, 119 Nightingale Road, Wood Green, N. The essential particular is the device and the word "Jubilate," the exclusive use of added matter being disclaimed. 162,436.

"SEEL'S HEALER," and sketch of a seal holding water-snake in mouth; for a medical plaster or salve. By H. H. Hayward.

"DESICCATED SOUP," signature, and other wording on label; for a prepared soup for medicinal purposes. By J. R. Croft and H. H. G. Wells, trading as The Pure Beef Company, 5 Water Lane, London. The essential particulars are the signature and device, the exclusive use of added matter, except trading style and address, being disclaimed. 162,753.

"VALINEROSE"; for chemical substances used in medicine and pharmacy, and for toilet articles. By R. Hovenden & Sons, trading as Picard Frères, 31, 32, and 33 Berners Street, W. 162,903, 162,904.

"BEECHAM'S TOOTH PASTE," picture of woman's head, and wording, on collapsible tube; for a dentifrice. By Thomas Beecham, St. Helens, Lancashire. The essential particular is the head, the exclusive use of the added matter being disclaimed. 159,411.

ONE FOR US.—"This interesting and attractive little volume," writes *Myer Brothers' Druggist* regarding "Scientific Mysteries," "was published by our esteemed exchange, THE CHEMIST AND DRUGGIST, of London, to be used as an advertising scheme by the druggists of England. The plan is to have the druggists sell the book, which will create a demand for the chemicals to be used in making the experiments. This is a very legitimate and enterprising method of increasing business. We see no reason why it should not work as well in America as it does in England."

NORTH BRITISH BRANCH.

A MEETING of the Executive Committee of the North British Branch of the Pharmaceutical Society was held at 36 York Place, Edinburgh, on Wednesday, April 13. There were present Mr. J. L. Ewing (Chairman), Mr. T. Mahen (Vice-Chairman), Messrs. Boa, Gibson, Stephenson, Nesbit, Macadam, Kinninmont, Kerr, Hardie, Fisher, Jack, Storrar, Strachan, and Kermath. Apologies for absence were read from Messrs. Fraser, Glasgow, and Paterson, Aberdeen.

The minutes having been read and approved,

THE ANNUAL REPORT

for presentation to the Council was submitted, and adopted. Wednesday, June 15, was fixed as the date of the election of the Scottish Executive.

The Chairman read a letter from Mr. Gilmore regarding the unsatisfactory nature of the recent regulations as to

THE SALE OF METHYLATED SPIRIT,

particularly as to the inability of chemists to supply it in cases of urgency on Sundays, and also pointing to the fact that the new spirit was unsuited for many scientific purposes.

Mr. Nesbit stated that he had felt it to be a great inconvenience not being allowed to supply methylated spirit on Sunday for bronchitis-kettles, and on a recent occasion he had made a present of spirit for a patient.

Mr. Kinninmont said that he had had a correspondence with the Somerset House authorities with reference to the use of the old spirit, but, while they would not allow him to use it, they allowed the Glasgow Apothecaries' Company to do so for the very same purpose that he proposed.

Mr. Macadam: Quite true.

Mr. Gibson suggested that a memorial should be sent to Somerset House, but Mr. Nesbit and the Chairman thought that they should first approach the Council.

Mr. Kermath said he had never been asked for methylated spirit on Sunday since the new regulations came into force.

Mr. Jack stated that he did not see how the new spirit could affect the making of microscopic slides.

Ultimately, on the motion of Mr. Kermath, it was agreed to ask the Council to approach the Somerset House authorities on the points referred to by Mr. Gilmore; an amendment by Mr. Macadam that the Sunday question be not mentioned being lost by a majority of eight to seven.

Personalities.

MR. A. P. BARNARD has again been returned as a guardian for Bethnal Green.

MR. JOSEPH BLOWER, chemist, has been elected a member of the Knighton Local Board.

PROFESSOR OF HYGIENE Löffler, of Greifswald University, is going to Greece to try his recently-discovered bacillus *typhus murium*, as an exterminant of the mice which infest that country.

It was sixty years ago on March 31, that Dr. Hermann Hager, the author of Hager's "Handbook of Pharmaceutical Practice," one of the foremost living German pharmacists, took his pharmaceutical degree.

MR. ROBERT GREEN, chemist, of Hare Street, Woolwich, has been re-elected, at the head of the poll, a member of the Woolwich Local Board of Health. Mr. Green has for several years been the chairman of the Board's Sanitary Committee.

THE Justices at the Blackheath Petty Sessions had before them last week lists of gentlemen nominated for appointment as overseers. Mr. Alfred Cooper Cole, chemist, of High Road, Lee, was nominated for the parish of Leo, but was not selected by the Justices.

THE competitor from Lerwick whose coupon took one of the first prizes in the Diary Advertisement Competition last week was Robert Russell, who was, at the time the Diary

was issued, an apprentice with Mr. Laing, of Lerwick, but is now with Messrs. J. and W. G. McCall, 329 Leith Walk, Leith.

THE *Pharmaceutische Zeitung*, in a note concerning Professor Flückiger's impending retirement from the chair of pharmacy at the Strassburg University, suggests that the Professor did not feel quite at home in his position. In 1873, when he went to Strassburg, there were 44 pharmacy students at the University, but the number has gradually diminished to 12 or 15. Professor Flückiger was born at Langenthal, in Switzerland, 64 years ago. He studied in Geneva, Heidelberg, and Paris, and was Staatsapotheker in Berne from 1860 to 1870, when he became Professor. His retirement at a comparatively early age is ascribed to his determination to devote himself exclusively to literary work. Our contemporary suggests that a good thorough history of pharmacy is wanted, and that Professor Flückiger is the man to write it.

LEAVES FROM A RECIPE-BOOK.

IT was one of our objects in beginning the publication of the extracts from a pharmacist's recipe-book to make a column under the above title a standing feature of THE CHEMIST AND DRUGGIST, at least for a time. A few years ago we succeeded in bringing together, through the assistance of our subscribers, a large number of useful recipes, and it would be a very good thing to begin again now. We should like especially if subscribers would communicate published formulæ which have turned out badly, but which they have succeeded in perfecting or utterly failed to work in any manner. This feature would be particularly valuable.

We have still several sets of the formulæ from the retired pharmacist's book to publish, and they will appear as we find room for them. Meanwhile we are glad to publish the following recipes, which Messrs. Ch. Delacre et Cie., of Brussels, have communicated:—

Soap for Cleaning Elastic Stockings.

Pulv. saponis	1b. ij.
Aquæ destillatæ	0 liij.

Dissolve the soap in the water, and when solution is complete allow to stand for two days and add—

Liquor ammoniæ	5viij.
Spt. odorati	5xxxiiij.

Mix and put up in covered vessels.

Directions: Dissolve half-an-ounce of the soap in a quart of cold water, in which let the stockings steep for twenty-four hours; then remove and wash well in cold water by shaking.

Effervescent Carlsbad Salts.

	Oz.
Dried artificial Carlsbad salts	33½
Bicarbonate of soda	18
Tartaric acid	15½

Mix and dry; then keep in well-closed bottles.

The following is the German Pharmacopœia formula for artificial Carlsbad salts:—

	Parts
Dried sulphate of soda	22
Sulphate of potash	1
Chloride of sodium	9
Bicarbonate of soda	18

All in powder and mixed.

MIDZU AME is a Japanese extract of malt which was shown at the Health Exhibition seven years ago. It did not "catch on" here, but we observe that it is recommended by a high authority in Washington as preferable to glucose for confectioners' use.

SUICIDE OF A CHEMIST.—Mr. Brooksbank Armstrong, a chemist, 68 years of age, carrying on business at 166 North End Road, Fulham, committed suicide on Sunday last by drinking hydrocyanic acid. He had been ill with influenza last Christmas, and since then his brain seemed to have been affected. At the inquest held on Tuesday a verdict of suicide while temporarily insane was returned.



Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., April 13.

The Dock Charges on Cardamoms.

Some time ago the importers of Ceylon produce, through Mr. Martin Leake, the secretary of the Ceylon Association in London, asked the directors of the London and East India Docks to reduce their charges for warehousing cardamoms, on the ground that, since the rates now in force were established, the value of the drug has fallen to one-fourth of what it was, and that the expenses are therefore pressing inordinately heavily upon the article. In some recent shipments, it is said, the freight from Ceylon to London has actually been less than the dock charges here. The answer of the Company is not satisfactory. The directors have agreed to reduce the "opering and bulking charges" by 6d. and 1s. per case, but they will not reduce the ordinary import rates. Upon referring to the table of dock charges we find that the rates for landing, reweighing and delivering cardamoms were actually increased by from 20 to 25 per cent. when, after the dock strike, the present tariff came into force.

The Effects of Cold on Alkaloids in Cinchona-bark.

On some of the Java cinchona plantations the prolonged period of cold, accompanied by night-frosts, which occurred in July last made it possible to ascertain the effect of a low temperature upon the alkaloids in the bark. Mr. Van Leersum, who has investigated the matter, reports that the freezing of the bark of *C. Ledgeriana* is accompanied by a considerable decrease in its alkaloidal richness. In one sample analysed by him the total proportion of alkaloid declined from 8.26 to 4.12 per cent., while the quinine alone decreased by over 1 per cent. In cases where the frost-bitten parts did not die off at once, the proportion of cinchonidine increased considerably at the expense of quinine—an effect similar to that observed in certain forms of cinchona disease. The following are the results of Mr. Van Leersum's analyses of various samples of bark (presumably taken from the same tree):—

	Quinine	Cinchonidine	Quinidine	Cinchonin and amorph. alk.	Total
1. Frozen bark, twenty-four hours after the frost	3.69	0.65	—	0.38	4.12
2. Partially-frozen bark, twenty-four hours after the frost ..	4.40	2.01	—	2.25	8.26
3. Sound bark, eighteen months old ..	4.49	—	0.02	1.90	6.41
4. Frozen bark, peeled three months after frost	0.97	0.70	—	1.17	2.84
5. Frozen bark, analysed after fourteen days	1.96	0.79	—	1.21	3.96
6. Frozen bark, analysed after fourteen days	1.50	1.20	—	1.19	3.89

Drug Imports into the United States.

The full official statistics of the foreign trade of the United States for 1891 are now to hand. They give the

following results, so far as concerns the imports of some of the principal drugs:—

Duty-free.

	1891	1890
	lbs.	lbs.
Alizarine	4,123,632	2,667,109
Cinchona	2,861,423	3,274,117
Gum arabic	826,248	935,841
Camphor (crude)	1,982,083	1,400,483
Shellac	7,485,456	5,837,298
Liquorice-root	82,539,923	45,360,615
Bleaching-powder	108,880,381	105,696,046
Opium	454,129	Dutiable
Potash, chloride	3,134,464	
" muriate	78,144,810	63,773,933
Quinine	2,527,099	3,790,297
Sulphur	116,971	131,093
Vanilla	228,435	179,046
Nutmegs	1,382,900	1,289,312
Pepper, all kinds	12,675,906	15,923,819

Dutiable.

	1891	1890
	lbs.	lbs.
Glycerine	14,710,119	11,290,709
Dyewood extracts	3,933,823	3,086,952
Opium (crude)	—	334,564
" (smoking)	63,189	77,578
Soda, bicarb.	1,500,663	916,355
" caustic	68,154,226	83,345,482
" sal.	347,822,902	350,521,656
Whale oil	359,215	305,710
Olive oil	613,497	755,667
Salt	463,455,263	527,835,772
Linseed	758,756	2,576,284
Soap, toilet	733,987	752,256
Spices, ground	2,253,137	1,189,146

The Price of Platinum.

Platinum has fallen considerably in value lately, and now costs only about one-half of its price in September, 1890, when it attained the highest quotation known. The following figures (in marks per kilo.) represent the fluctuations of the metal during the last five years:—

1887	July 925	Sept. 880			
1888	Feb. 1,000	May 970	Aug. 950	Nov. 1,000	
1889	Jan. 1,000	March 1,100	Aug. 1,030	Oct. 1,000	Nov. 1,075
1890	Jan. 1,500	June 1,900	Sept. 2,300	Oct. 2,200	Nov. 2,100
1891	Jan. 1,750	July 1,550	Sept. 1,400	Oct. 1,300	Dec. 1,275
1892	Feb. 1,250	March 1,200			

German Chemical Dividends.

The Aniline Works at Höchst on Main, late Meister Lucius & Bruening, will pay their shareholders 26 per cent. for 1891 against 25 per cent. in 1890. The United Chemical Works in Mannheim, out of a net profit of 840,667m. in 1891 will pay 6 per cent. dividend, and the Chemische Fabrik in Billwaerder, near Hamburg, late Hell & Sthamer, who have netted 319,625 m., 10 per cent.

The American Cotton-seed Oil Crop.

The New York Oil, Paint, and Drug Reporter has been gathering information on the prospects of cotton-seed oil. The crushing season is now almost at an end, and, according to our contemporary, the consensus of opinion among the oil-pressers confirms the belief that the amount of seed crushed this season was considerably in excess of that of any previous year. The cause of this is not alone the large crop, but also that the planters, finding the income from their cotton much smaller than expected, have harvested a large percentage of their seed. In some cases seed has been sent to the mills by planters who never before marketed it, but

used it only for fertilizing purposes. It is uncertain what amount of seed is still held by planters. Some believe that the quantity is large, but others contend that but little more than is sufficient for planting and fertilising purposes has been retained, and that the comparatively high price which has prevailed for seed during the past season has induced a general marketing of this product.

The condition of the seed crushed during the past season compares favourably with that of any previous year, and shows marked superiority over last year's both in quality and the amount of the oil yield.

These conditions would naturally lead to the expectation of an active market and advancing prices, but a contrary tendency has prevailed for some time, and the market at present offers no encouragement to hope for improvement in the near future. The price of crude and refined oil is now as low as it has ever been in the open market, with possibly one exception, and the outlook is not regarded as promising an active movement later.

Union of German Soda Manufacturers.

The German manufacturers of soda ash formed a Union some time ago, with headquarters in Bernburg. So far the results of this pool have been satisfactory to its members, and it is now proposed to form another Union, to embrace all the German manufacturers of soda crystals. These buy their raw material from the Bernburg Syndicate, the foreign markets being unattainable for them on account of the Customs duty, but they have hitherto undersold each other to the verge of ruin. At the invitation of the Bernburg Syndicate the crystal-soda men met in conference recently to lay down the basis for a convention. It is suggested that the manufacturers shall form themselves into geographical groups, each of which is to supply its own parts of the country. The production of the various works is to be regulated according to their average output, and prices are to be raised moderately.

ACID (CITRIC).—The London market is quiet at 1s. 5 $\frac{3}{4}$ d. to 1s. 6d. per lb. from secondhand holders. The exports of citric acid from this port in the first nine days of April were 238 cwt.

ACID (TARTARIC).—A steady but somewhat stagnant market, at 1s. to 1s. 0 $\frac{1}{2}$ d. per lb., according to brand.

ANTIMONY.—Crude Japanese is somewhat firmer, and as much as 26s. is now asked on the spot for good quality; for arrival 24s. c.i.f. is still quoted.

CAMPHOR (CRUDE).—The market is easier, and raw Japan offers at 110s. c.i.f. for April-May shipment to-day.

CHILLIES.—At auction to-day 75 bales Zanzibar chillies sold at 56s. to 65s. 6d. for medium stalky to fair bright.

CINCHONA.—The following are the shipments from Ceylon between January 1 and March 21:—1892, 1,193,498 lbs.; 1891, 1,324,966 lbs.; 1890, 1,674,324 lbs.; 1889, 2,193,716 lbs.

CLOVES.—Zanzibar cloves remain exceedingly depressed. For delivery, June-August, 500 bales have been sold as low as 2 $\frac{1}{10}$ d. per lb., and there are further sellers at that figure.

COCA-LEAVES.—Some of the recently-imported Huanuco leaves were sold in the course of this week, at 1s. 8d. per lb.

CREAM OF TARTAR.—Rather steady at 88s. per cwt. for best white French crystals on the spot.

ERGOT OF RYE.—Good sound Spanish is offering at 2s. 2d. to 2s. 3d. per lb., but there is not much to be sold at the first-named price: the market is reported firm. Russian ergot offers at 1s. 10d. per lb. c.i.f. terms.

GAMBIER.—Block gambier is very much depressed, and the price on the spot has fallen to 19s. 3d. per cwt. Fair free cubes are worth 32s. per cwt. on the spot. At auction 414 bags *cube Gambier* were bought in at a nominal price.

GUM ARABIC.—There is a fairly steady demand for East Indian gums for consuming purposes. Common to fair Ghatti has sold at 22s. to 26s. per cwt.; fine pale kinds of Ghatti are scarce, and inquired for; Kurrachee-Amrad gums have sold at 50s. to 57s. 6d. per cwt. for good quality.

There has been some business in Brazilian gum at 28s. per cwt. in Liverpool, and for good Turkey sorts 90s. per cwt. was paid.

INDIARUBBER.—The market is slightly easier. On Tuesday 5 tons fine Pará rubber sold at 2s. 10 $\frac{1}{2}$ d. per lb., a decline of $\frac{1}{2}$ d. on the previous quotation.

IPECACUANHA.—A few serons have sold privately at very firm prices, quite equal to those paid at the last sale. This week's arrivals have been very heavy, viz., 214 packages of Rio root (imported from Montevideo), and a few bales of Carthagena.

OIL (CASTOR).—The market is dull and sluggish. In Liverpool, prices have fallen for all kinds, and good Calcutta seconds are offering at 2 $\frac{3}{4}$ d. per lb. For French oil 2 $\frac{1}{10}$ d. and 2 $\frac{1}{15}$ d. per lb. for first and second quality respectively, is asked.

OIL (COD-LIVER).—The market is firm and rising; from 75s. to 80s., c.i.f., is now quoted for best new non-congealing. We hear it said that 80s. has been paid to-day. During the week ending April 9, the production of steam-refined cod-liver oil in Norway was only 370 hectolitres, the total being up to that date:—7,640, against 17,913 on April 11, 1891, and 16,680 hectolitres on April 12, 1890. The Lofoden fishing this season is now practically ended.

OILS (ESSENTIAL).—Reports from Italy state that, in consequence of the prolonged absence of demand, holders of essential *Oil of lemon* and *Orange* have reduced their quotations by 6d. to 9d. per lb.

OPIUM.—A Smyrna correspondent, writing under date of March 31, says:—The accounts from the interior for the growing crop remain satisfactory, for although the extent of land under cultivation is rather less than last year, especially in the lower districts, the plants are very vigorous, and expected to yield a larger proportion of opium than is usually the case. The sales in March amounted to about 450 cases of manufacturing opium, of which 350 were for the American markets. It is therefore believed that the United States will not require any large supplies for some time to come. Notwithstanding these sales the quotations are lower than they were last month, the values being now:—New Yerli opium, nominal, 7s. 6d. to 7s. 7d.; new Karahissar, do., 7s. to 7s. 1d.; new Yerli, talequale, 6s. 9d. to 7s.; new Karahissar, do., 6s. 6d. to 6s. 7d.; new current, do., 6s. 4d. to 6s. 5d.; old selected, do., 6s. 8d. to 6s. 8d. per lb., f.o.b. The Smyrna stock in first and second hands is now reduced to about 950 cases.

QUICKSILVER.—The market is very quiet. Importers' price, 7l.; secondhand's, 6l. 17s. 6d. per bottle.

QUININE.—The market remains very dull, at 9 $\frac{1}{2}$ d. to 9 $\frac{3}{4}$ d. per oz. for second-hand German in bulk.

SENEGAL.—The market is firm at 1s. 10d. per lb. for good bright root.

SHELLAC.—The market was rather firmer for delivery, but the business at the beginning of the week has been small, as operators are unwilling to pay the increased rates asked by holders. At auction on Tuesday 1,252 cases were offered. The sales opened with a fairly strong competition, and some advance in garnet lac; but the tone soon became much weaker, and the sale closed at an irregular decline of about 1s. on *orange* and *button* lacs, while *garnet* remained steady. Of orange lac 341 cases were sold, out of a total of 359 disposed of. The following prices were paid:—Livery to fair bright worked, 73s. to 76s.; fair bright to good pale unworked, 74s. to 77s.; livery and blocky, 73s. down to 69s. per cwt.; garnet, good flat free, A.C., unworked, 74s. per cwt. Since the auctions there has been very little life on the market.

SODA SALTS.—Small sales of *Soda Crystals* were reported at 70s. landed terms a few days ago, but this high price deters buyers from purchasing beyond their immediate requirements. The London makers quote from 70s. to 72s. 6d. per ton. On the Tyne the price is 63s. 9d. to 65s. per ton. *Nitrate* is flat and neglected at 9s. to 9s. 4 $\frac{1}{2}$ d. according to quality. *Caustic soda* steady at 10l. 15s. for 70-per-cent., and 9l. 7s. 6d. for 60-per-cent. white on the spot.

STICKLAC.—About 30 packages woody Rangoon lac sold at auction at 50s. to 53s. per cwt.

TEA—The Congo market is not likely to be enlivened by the holiday season, and there is very little business being done, though there is rather more disposition in the country to buy the Ningehous and Panyongs now selling so cheaply between 6*d.* and 8*d.* Capers are easy, lowest flake selling at 3*d.* per lb., but fine teas from 8*d.* to 10*d.* show a further advance for the week, and these teas are now getting into very small compass. Monday's Assam sale, and Tuesday's Ceylon sale, the only ones for the week, went off slowly.

TURMERIC.—Very dull and neglected. A rather large quantity of Bengal was offered at auction, of which only a few bags, good bright finger, sold without reserve at 17*s.* 3*d.* per cwt.

WAX (JAPAN).—On the spot 42*s.* is now the nearest value for good white squares, and for shipment 35*s.* c.i.f. terms is asked.

THE LIVERPOOL MARKET.

CANARY-SEED.—Firmer, with a tendency to advance; 100 bags fine Turkish sold at 36*s.*

CHILLIES.—The recent arrivals of *Sierra Leone* have been cleared off; fine bright red have sold readily up to 45*s.*, and now 50*s.* is asked.

CHLORATE OF POTASH continues to be firmly held, but no change has taken place in the value. *Black ashes* and *pearlashes* are firm at last week's figures.

CREAM OF TARTAR.—Steady on the spot at 90*s.* Forward the advanced rates are fully maintained.

GINGER.—*African* is in more plentiful supply, and buyers of fine new root at 27*s.* 6*d.*, but no sellers under 30*s.*

GUM TRAGACANTH.—More inquiry; good medium selling at 8*l.* 15*s.*, and for fine 10*l.* 10*s.* is asked.

HONEY.—*Chilian* is arriving slowly; 92 barrels, pile 3, new, have sold at 26*s.* 6*d.*; small sales of pile 2 at 29*s.*

QUILLAIA continues to fall, and 23*l.* has been taken for a parcel of good bark.

WAX (BEES).—The demand for *Chilian* continues, and ordinary has sold at 7*l.* 3*s.* 9*d.*; medium, 7*l.* 15*s.*; and fine, 8*l.*

THE SMYRNA OPIUM MARKET.

(Telegram from Our Correspondent.)

SMYRNA, Wednesday.

THIS week a further quantity of old-crop 'manufacturing opium has been sold at the rate of 6*s.* 6*d.* per lb. f.o.b. Smyrna, the price being the same as last week.

CHAPPED HANDS.

A CORRESPONDENT of the *Lancet* asked for ideas in regard to the treatment of a bad case of chaps, and the following replies were published, some of which our subscribers may be able to utilise.

Mr. Edgar Duke (St. Leonards) recommends for this affection the application of equal parts of glycerine, sulphurous acid, and rose-water several times a day. It will be found that the "chaps" will soon heal; and, as an additional aid, the querist might, if necessary, advise his patient to wear white-kid gloves at night after using the liniment.

Dr. Thursfield recommends one part of the glycerole of snbacetate of lead with seven of glycerine, to be used with indiarubber gloves, so as to keep up free moisture of the skin.

A Dublin correspondent says, try "lana-creolin." Its name indicates its composition. He had it from Messrs. Bnrroughs, Wellcome & Co. It may be used freely, especially in the evening, and chamois-leather gloves should be worn at night.

Another suggestion is: liquor plumbi diacetatis, 5j.; cretæ preparatæ et ol. olivæ, q.s. of each to make an ounce of the consistence of an ointment. The hands to be well smeared with this each night, and a pair of soft gloves worn.

A correspondent advises holding the chapped hands over the fumes of sulphur twice daily. This has answered well in obstinate cases.

THE NEW SPANISH CUSTOMS TARIFF.

THE following are the provisions of the new Spanish Customs Tariff, which came into operation on February 1, in so far as they affect the drug and chemical trades. At present imports from the United Kingdom and from Germany enjoy the reduced rates (such as they are) of the "special tariff," but goods from France pay the general tariff rates. The duties, unless otherwise stated, are levied in pesetas of 100 centimos (1 peseta = about 9½*d.*) per 100 kilos. :—

	General Tariff	Special Tariff	Old Duties upon British Goods
	Pes. Cent.	Pes. Cent.	Pes. Cent.
Coco-nut and palm oil, and other heavy oils	9 60	8 00	1 00
Other vegetable oils, excepting olive oil	27 00	23 00	23 00
Seeds of rape, of flax, and other oleaginous seeds, including copra or coco-nut	1 20	1 00	0 20
Colophony, pitch, and other resinous products of a similar kind	5 40	4 50	—
Garancine, or madder, and other vegetable products, not specified under other headings	12 00	10 00	10 00
Products of the animal kingdom, employed in medicine	3 60	3 00	3 00
Ochres and natural earths, for painting, including alumina	0 12	0 10	0 10
Indigo and cochineal	54 00	45 00	10 00
Dyeing-extracts	9 40	7 80	3 00
Varnishes	28 80	24 00	18 00
Colours, in powder or in lump	9 00	7 50	4 80
" prepared, and inks	30 70	25 60	24 00
" derived from coal, and other artificial colours and garancine and its mixtures with madder ..	Per kilo. 3 00	Per kilo. 2 50	Per kilo. 0 75 0 65
Muriatic or hydrochloric, nitric, and sulphuric acids	Per 100 kilos. 2 60	Per 100 kilos. 2 20	Per 100 kilos. 1 00
Natural mineral waters ..	Per hectol. 6 00	Per hectol. 5 00	—
Alkaloids and their salts ..	Per kilo. 36 00	Per kilo. 30 00	Per kilo. 27 50
Alum	Per 100 kilos. 1 80	Per 100 kilos. 1 50	Per 100 kilos. 1 15
Sulphur	1 50	1 25	0 25
Alkaline carbonates, barillas, caustic alkalies, and ammoniacal salts, excepting sulphate	4 55	3 80	0 80 1 00
Chloride of lime	3 10	2 60	1 30
Chloride of potassium, sulphate of soda, chlorine and carbonate and sulphate of magnesia	0 60	0 50	0 50
Phosphorus	Per kilo. 0 85	Per kilo. 0 70	Per kilo. 0 35
Nitrate of potash (saltpetre)	Per 100 kilos. 4 50	Per 100 kilos. 3 75	Per 100 kilos. 1 50
Nitrate of soda, and sulphate of ammonia	1 20	1 00	0 25
Oxides of lead	6 00	5 00	2 00
Sulphate of copper	1 20	1 00	—
Sulphate and pyrolignite of iron	1 80	1 50	1 50
Pills, capsules, jujubes, and the like	Per kilo. 2 40	Per kilo. 2 00	Per kilo. 1 85
Pharmaceutical products not specified	1 20	1 00	0 90
Chemical products not specified	0 12	0 10	0 10
Common soap	Per 100 kilos. 22 50	Per 100 kilos. 18 75	Per 100 k 15 80
Mineral and vegetable wax in lumps	30 00	25 00	—
Paraffin, stearine, animal wax, and spermaceti, in lumps	24 00	20 00	16 50
The same, and all manufactured waxes	60 00	50 00	33 90
Perfumery and essences ..	Per kilo. 2 60	Per kilo. 2 00	Per kilo. 1 75

ONE of the advantages of codeine over morphine is that patients do not form a habit of taking it, and it is just as good, if not a great deal better, for cough-mixtures.



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only: and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulae consult the last volume, if you have it.

Letters, queries &c., will be attended to in the order received.

Mr. Burroughs in Morocco.

He smokes hashish, has visions, and sets out to the English chemist in quest of an antidote.

Mr. Burroughs's peregrinations recently brought him to the city of Tangier, in Morocco. While doing the sights of Tangier he dropped into a Moonish café, where he regaled himself with coffee (his Jewish guide taking a glass of green tea with peppermint-leaves) and hashish. The hashish was prepared for smoking on the spot. A boy cuts up a few leaves of the Indian hemp along with some tobacco-leaves into a greenish chaff, and the mixture is smoked out of a long wooden pipe with small bowl, which goes the round of the company. Mr. Burroughs took a few whiffs of the hashish-pipe, and appears to have been instantly carried off into the seventh heaven of imaginary delight. Every thing grew bright around him. The seasick-complexioned smokers, the string band playing their varied instruments with a piece of bone or tortoiseshell, became objects of joy and pleasure.

"The music, or the hashish, or both," says Mr. Burroughs, "make you feel so light that you could run up the jagged sides of the pyramids (the stone steps of which are 4 or 5 feet thick) without the sinewy Bedonins tugging at your hands or pushing you behind. From the secure but dizzy height you seem to see the Nile flowing among the green fields, and the white and yellow palaces of beautiful Cairo rise out of the gardens of palms, magnolias, and sweet-blossoming acacias. You are transported, like Aladdin, to the moonlit Alhambra, and hear the music of its fountains and streams, or down the Red Sea and beyond the pinnacles of Sinai to gaze at distant Mecca, and then you are floated as by an invisible balloon over the snowy peaks of the Himalayas, to the evergreen foot-hills where sacred streams burst from beneath marble temples and flow by the heathen shrines. But the marble dreams of the sons of the Prophet, the most exquisite harmonies of glistening domes and cupolas perched on lofty towers, render insignificant the cone-shaped structures of Further India, of which the builders (without faith either in their idols or in their architecture) seem afraid that they will fall down of their own weight.

"And the next morning," continues the traveller, "you try to collect your thoughts, and find there are none to collect. The best thing under the circumstances is to try something as an antidote to the combination of hashish, tobacco, coffee, peppermint, and green tea, so you inquire if there is any English chemist in Tangier where you can get something cooling. 'Certainly,' says the proprietor of the Continental Hotel. 'From my door you go to the big offal-heap on the corner, and turn to the right through a winding alley till you come to a dead donkey, then to the left under a dark archway. Turning up the legs of your trousers you wade through the muck, and when again in the light of day you reach a place where there are four rats and a cat dead on the scene of the conflict of three weeks ago. A little further on, where there is a cesspool and a well, you hold your nose and jump over the rubbish where a building has fallen and the pavement has been appropriated to repair it. A little further on you come to a Seven Dials sort of place

into which the sun penetrates, and at the right of this place (called Wad Ahardan) is the house of Mr. Murillo, the English chemist.' 'Quite so,' you say, and set out on your journey. The permanent landmarks are all passed after narrowly escaping several falls, and one or two sprained ankles. There is another shop in front of the pharmacy, which is reached through a passage at the side.

"The pharmacy occupies four sides of an inner courtyard roofed in with glass. The upper portions of the building are surrounded by an open verandah overlooking all parts of the pharmacy.

"All four sides are crowded with bottles, and packages, and drawers of hashish, peppermint, and tea. There is a large assortment of Bishop's effervescent salts of magnesla, antipyrin or bicarbonate of potash, Eno's or Lamplough's salines, and a general stock of drugs such as you would expect to find in any English pharmacy. The Sultan has heard of the fame of 'Sequah,' and got a dozen of the oil from Mr. Murillo. This is a departure from the usual rule of fastings, and prayers, and incantations, amulets, and charms against the evil eye, which, in the view of the Moors, is the cause of most diseases. They have a number of herbs from which they make decoctions or teas. Chief among these for usefulness is the *Origanum compactum* for diarrhoea, dysentery, &c., and the thyme. Hot infusions are drunk *ad lib*, or as much as the patient can hold.

"They are also great believers in the virtues of sarsaparilla, which with them appears to act as a tonic. They are quickly acted upon by European drugs, the curative influence of the mercurials and iodides being very prompt, so I am informed by Dr. Churcher at the Medical Mission.

"Dr. Churcher tells me that the effect of hashish is not as bad as that of opium. Taking it is, however, a slavish habit, exciting the imagination, seeming to make a second self which from the outside contemplates the original, and watches its thoughts and movements. The drug is also made into a confection, the consumption of which causes bursts of laughter on occasions when levity is not specially called for. We have all known somebody who must have stolen a pot of this hashish jam in his youth and consumed it all at one sitting, thus ensuring a lasting effect."

Pharmaceutical Society v. Lees.

SIR,—I have every respect for the legal knowledge and decisions of Sheriff Birnie, but on a question of medical or pharmaceutical ethics he can hardly be regarded as a better authority than the majority of the educated public. Even admitting, however, the truth of his opinion—that I had, intentionally or otherwise, been covering an unregistered druggist and shielding him from the consequences of his illegal acts—I have at least the consolation of knowing that I am even less blamable than the great majority of chemists throughout the country (probably including members of the Pharmaceutical Council) who, in employing unregistered assistants for the selling and dispensing of scheduled poisons, are not only aiding and abetting infringements of the Pharmacy Act, but are receiving pecuniary profit from these transactions.

Probably, if Sheriff Birnie had but known these facts, he would have treated more leniently those eight or nine scapegoats (not forgetting myself) who had been selected for punishment by the Pharmaceutical Society. At all events, I think there is little wonder that many, like myself, have ceased to value an Act which, in most cases at least, is only set in motion to satisfy the jealousy or spite of neighbouring informers, and leaves exempt those in high places who are the greatest transgressors.

When the Pharmaceutical Council have shown a real determination to carry out the provisions of the Act honestly, fearlessly, and impartially, then, but not till then, will medical men and others recognise the equity of the law and the claims of those who administer it.

I am, yours truly,

Govan, April 11.

DAVID LEES.

Unqualified Assistants.

SIR,—If I read in your issue of to-day Mr. Henry W. Reece's letter aright, which is possible, then we do not agree.

The public safety is endangered when an unqualified

manager is left in charge, otherwise I doubt very much if we would have the Pharmacy Act. If the public safety is endangered when a business is under the managership of an unqualified assistant, I must "seem to think" it is more endangered when the messago-boy has full charge.

Again, Mr. Reece says, "The practice would be equally fraught with danger even if a Major man were to so far neglect his duty," &c. I fully agree with him on this point, but how does he make out that "qualified folks never do this"? I say the business in question (like, I am sorry to say, too many others) is managed by an unqualified person, employed, of course, by a registered chemist, who cannot but be aware of how the business is conducted. Any qualified man, in my opinion, who foolishly leaves his business in charge of a boy, apprentice, or errand-lad, should have such business only as the lad is qualified to manage.

I am, Sir, yours truly,
W. I. LIM.

Druggists' Assistants in India.

Mr. P. A. Keogh, of Mussoorie, sends us the following letter, which he received in reply to an advertisement for an assistant in an Indian paper:—

RESPECTED SIR,—I most humbly and respectfully beg to state that I have many a certificates of my good conduct and ability, which I have obtained from several School Masters. Besides it, I have many other certificates and Sanads, in which it is fully declared that my forefathers were famous Rases, and they had several villages in their possession, and 200 horsemen used to live in the presence of my forefather Lalla Jodha Ram in the Sikhs rule. There is no doubt that now this family is in a wretched state. I have passed the Anglo-Vernacular Middle School examination of the Punjab University in 1890. I have seen from Pioneer that you require an Assistant, so I beg to draw your attention on this that can you kindly accept me for the post. I am full young, hard work man. I know English and Urdu. I know some thing the work of companies, because I had served for two months only in Bombay. If you wish to grant me the post of your Assistantship, I am glad to come to you. If you can be kind enough in granting me the post, I am ready to come to you, but kindly inform me from pay, you will give me. Please inform me from its reply.

I will remain,
Sir,

Your most obedient servant,
HAR BHAGWAN,
Brother of L. Hakim, Rai,
Assist. Sadur Qanauago.

Peshawar,
Punjab.
4. 10. 91.

We gather from Mr. Keogh's letter that he considers there are openings for good assistants in India.

By the same mail we also get a long letter signed "A. B. C."

The Medicine-stamp Acts.

Messrs. Mawson, Swan & Weddell ask us to state that in the May issue of their "Health Messenger" they will publish a popular article intended to enlighten the public and members of Parliament on the effect of the Medicine-stamp Acts, and they will be glad to hear from chemists their opinion in favour of or against the abolition of these Acts as early as possible. Communications to be addressed to the editor of the "Health Messenger," 20 West Grainger Street, Newcastle-on-Tyne.

LEGAL QUERIES.

Consult Alpe's "Handy-book of Medicine-stamp Duty" in regard to patent-medicine questions.

General information regarding the laws affecting chemists and druggists is printed in THE CHEMISTS' AND DRUGGISTS' DIARY, 1892, pp. 161-5.

For stamp duties, licences, Customs regulations, &c., see the DIARY pp. 151-9.

10/66. *Nemo*.—We believe the Pharmaceutical Council consider, or at least a past Council did consider, that their Act of 1852 gave to pharmaceutical chemists the exclusive right to describe their shops as "pharmacies." We do not ourselves share in that opinion, but we cannot tell what a Court might think. It is pretty certain, however, that their neglect to enforce what they once regarded as their right would debar them from its assertion now.

5/16. *X*.—The sale of *coccus indicus* by chemists and druggists to brewers, beer-dealers, and beer-retailers was prohibited by 56 Geo. III., c. 58, s. 3, under a penalty of 500*l*.; but the section was repealed as to sales to brewers in 1880, and wholly repealed in 1885, and there is now no statutory restriction so far as we are aware on the sale of this drug.

VETERINARY QUERIES.

8/5. *G. S.* has a customer who has a black horse with the least spot of white hair on its face, and he would like to have that dyed. [It is very difficult to get a good black, because the living skin is always greasy, no matter how many washings of soda you may give it. Anything but pigment in the shape of black enamel looks "foxy" when it is done. If your friend is particularly anxious to avoid showing this white mark he must black it over every time he goes out. It must be borne in mind, too, that the hair will always grow of the natural colour.]

9/28. *Astringent* writes:—"In 'Veterinary Counter-practice' the following is given as an astringent for Scour in Calves:—

Tinct. opii	..	..	..	..	..	3j.
Aq. calcis.	..	..	..	..	..	Oij.

M. Ft. mist.

Capt. 3ij. bis vel ter die.

(1) Would it answer as well to use the following?—

Tinct. opii	..	..	..	..	..	℥ 24
Liq. calcis sacch.	..	..	..	..	..	3j.

M. Ft. mist.

For one dose.

I have been thinking of putting up the last-named in 3ij. bottles and would like to know if you would consider it suitable. (2) What is the precipitate which is formed when tinct. opii is added to aq. calcis? (3) Do you see any objection to the following, which is a modification of the 'Calves' Cordial for Scours,' which you give also in 'V. C. P.'?—

Tinct. opii	..	..	..	..	..	3ij. ℥ 40
Alum. pulv.	..	..	..	..	..	gr. 80
Inf. catechu conc. (1 to 7)	..	..	..	..	..	3ij. ℥ 40
Tinct. zingiberis fort.	..	..	..	..	..	3j.
Inf. quercus conc. (1 to 7) ad	..	..	..	..	..	3ij.

M. Ft. mist.

Capt. 5j. ter die."

[(1) The alternative you suggest is, perhaps, as good as the original, but with your directions it will be necessary to add sufficient water to equal the original. (2) The lime-water precipitates meconate of lime and the alkaloids of opium except morphine and codeine. (3) Pharmaceutically and chemically your substitute is the same, but in veterinary practice we find better results from fresh infusions than concentrated, and with few exceptions we avoid alcohol where an aqueous vehicle answers equally well. We do not think that in ruminants the same benefit is derived from the active principle of an ounce of zingib. as from the powdered root.]

6/27. *E. R. S.* comments as follows on the formula for Calves' Cordial in "Veterinary Counter Practice," pages 30 and 31:—

"No directions as to the dose for calves is given, although the quantities are obviously far too large for one drench, and in the very next recipe on page 31, 'Astringent for scours or diarrhoea,' not less than 2 oz. of alm., besides catechu and oak-bark, are given as one dose, 'to be repeated if necessary.'

Our veterinary authority replies:—

"The dose is not too much for a fair-sized calf, but a certain amount of discretion is expected from veterinary counter-prescribers, and the dose should be increased or diminished if inquiry elicits that the animal is very young and weakly, or of a large coarse breed. The recipe on page 31 referred to is an old-fashioned one in much favour with farriers, and is certainly a large dose, but it is given on

the 'cure-em-for-1s.-6d.' system, and is not expected to be repeated, as a rule, though it may be done without danger. It is claimed for 'V.C.F.' that none of the recipes are given on simply theoretical principles, but are collected from the practice of the most successful veterinary surgeons who have had them in daily use for many years—often, indeed, for generations. The difference in doses in such recipes as appear on pages 30 and 31 is more apparent than real, as one practitioner aims at saturating the animal with a large astringent dose like 2 oz. of alum, while another thinks small doses repeated have an equally beneficial effect. We know veterinary surgeons who would give the large dose prescribed when called to an advanced case, and perhaps save the animal, but the same prescriber would endeavour to correct the secretions by small doses if called to an early case. In the late stage the animal dies of collapse, and heroic doses are therefore justifiable."

5/73. *Vet.*—You will not succeed in getting rid of the species of Bot you are now dealing with by giving repeated doses of purgative medicine. Their home is in the rectum, and they must be picked off with the fingers when the horse is in the act of defecating. The "fundament bot," as this variety is commonly called, is developed into a fly in the summer, and watches its opportunity to insert the eggs in the inner folds of the rectum when that portion of the intestine is exposed for an instant in passing dung. It is a variety very commonly found in Russian ponies, and ung. hydrarg. inserted on the fingers allays irritation if it does not get rid of the bots.

9/9. *Farmer.*—If the following does not accurately represent the composition of the Calf-drink you send, it is not very different, though it may be better:—

Pulv. opii	gr. x.
Mag. carb. pond.	5j.
Pulv. cassie	℥ss.

M.

MISCELLANEOUS INQUIRIES.

Inquirers will please read the "Memoranda for Correspondents."

A list of "Books for Chemists" is given in THE CHEMISTS' AND DRUGGISTS' DIARY, p. 317.

For all particulars regarding Educational and Examination matters refer to our issue of September 19, 1891.

Replies to queries are inserted according to the space open in any week, and insertion on any specific date cannot be guaranteed.

Back numbers of our weekly issue, containing formulae, &c., occasionally referred to in answers, can be obtained from the Publisher at 4d. each.

6/40. *Spero.*—Formula for chutney. *C. & D.*, April 4, 1891, p. 496. Notes on dandruff, *C. & D.*, January 3, 1891, p. 14; formula for efficacious pomade, December 27, 1890, p. 876.

6/66. *Samborne.*—Indian Brandy.—The following is the recognised formula for the medicinal preparation:—

Spt. ether. nitros.	3iv.
Tr. rhel. co.	3iv.
Syr. simplicis	3j.

M.

A popular Indian brandy which we examined four years ago consisted of—

Tr. capsici	5j.
Tr. myrrhæ	5ij.
Tr. croci	q.s. (to colour)
Syr. simplicis	3iv.
Spt. ether. nitrosi	3iv.
Spt. rectificati ad	3x.

M.

Before selling the latter preparation the Board of Inland Revenue should be asked if they consider it a medicine or a beverage.

7/18. *Aqua.*—We do not reply to anonymous correspondents.

6/65. *T. R. C.*—Birdlime.—See December 19, 1891, p. 893. A common article can be made by boiling linseed oil with a little resin until it is stringy.

7/60. *Avena Sativa Contusa*—The only medicinal use to which the oat has been put has been in the United States for allaying the craving for drink. It was or is used as a tincture, and we should think that the discovery that the most popular preparation going by the name contained morphia as well as a large percentage of alcohol is sufficient indication of the therapeutic properties of the oats.

8/11. *Opodeldoc.*—What kind of soap did you use for making the lin. saponis which has become gelatinous?

8/8. *A. L. P.*—Sherbet is made of tartaric acid and bicarbonate of soda, of each 1 lb.; sugar, 2 lbs.; and essence of lemon, 2 drachms.

8/38. *Tenuior.*—The best way to decolorise the proof spirit is to distil it, or rather three-fourths of it. Filtration through animal charcoal may decolorise, but the filtrate is likely to contain some phosphate.

9/45. *J. H.*—See answer to "Photo," February 27.

4/46. *R. R.*—We could send samples of salts to the colonies, but it would be impossible for anyone there to compete, as the analyses are performed and replies sent in and examined within the space of twenty days, or less.

9/5. *Dens.*—Lower artificial dentures (vulcanite setting) require nothing but their weight to keep them down, especially if all the teeth have been removed. There is no necessity for weighting, the weight of the porcelain and the rubber with the strengthening wire being sufficient; but the "case" has to fit exactly, and it is necessary to alter it by pating whenever it presses so hard on the gum as to cause inflammation and soreness. The use of springs is uncommon, and they are unnecessary for the majority of cases. The denture has, of course, to be very nicely made, so that it may not move with the motion of the tongue.

10/19. *Kola.*—We do not suppose that there is anything in the world that will keep flies away from a confectioner's window, but the neatest and cleanest way to catch them is to stretch strings anointed with fly-gum from side to side.

11/3. *Lichen.*—(1) Furniture Paste:—

Yellow wax	4 oz.
Turpentine	8 "
Resin	1 "
Alkanet	½ "

Melt the wax and resin on a water-bath, add the turpentine and the alkanet, and digest until a good colour is obtained, then strain. Make up the weight to 12 oz. with turpentine, and stir until cold.

(2) Cheap Pomade:—

Lard	1 lb.
Palm oil	1½ oz.
Oil of citronella	20 drops
" bergamot	10 "
" lemon	10 "
" cassia	5 "

Melt the wax and palm oil, strain, and when cooled somewhat add the perfume.

12/23. *G. D. Coy.*—Paraffin oil does not appear to be more stimulating than vaseline as a hair-dressing. Some

years ago Petroleum Pomades were popular, but they have now given place largely to vaseline alone, suitably perfumed. Use for each pound of vaseline—

Otto of rose	8 drops
Oil of bergamot	12 "
" cinnamon	2 "
" cloves	2 "

5/63. *Ripley* asks: "What is the cause of Camphor sometimes Floating in Water, and at other times being deposited, the conditions both times being alike?"

[The last clause of the question is a fallacy: different effects being in all cases due to different conditions. In the physical world, as in social life, "circumstances alter cases." The specific gravity of camphor at 12° C is 0.995 (according to Flückiger, Watts' Dictionary giving 0.992 at 10° C.). Water at the same temperature being about 0.9991, consequently at the normal temperature camphor sinks in water. Presuming that the sinking is not due to adhering heavier matter, the most probable explanation of the phenomenon is that the conditions of the fluid and solid are so altered by temperature that the repulsive force characteristic of camphor helps to sink it. But then the same force should make it float, seeing that the top of the liquid is the path of least resistance.]

5/25. *Tepidum*.—(1) Herb-beer Extract should have from 2 to 5 grains of salicylic acid added to each ounce, in order to prevent fermentation. Less may do, but the proportion wholly depends upon the nature of the extract, and that is a point on which you give us no information. (2) Cheap Sauce.—See THE CHEMIST AND DRUGGIST, August 29, 1891, page 352; April 4, 1891, page 494.

4/71. *Adeps Benz.* asks how *Nepenthe* differs from tinct. opii? The formula of the latter is in the B.P., of the former in Ferris & Co.'s recipe-book. The gap is filled up as far as the makers think necessary by their advertisement in THE CHEMIST AND DRUGGIST. Will "*Adeps Benz.*" study it?

4/51. *A. M.*—The Neatsfoot Oil which has been darkened by heating, may be considerably decolorised by filtration through bone-black.

4/43. *Homer*.—(1) Dr. Goodhart does not state what doses of potassium iodide and ethereal tincture of lobelia he gives in the Treatment of Asthma. The following mixture may, however, be safely taken:—

Potassii iodidi	5j.
Tr. lobeliae aetherial.	5iv
Glycerini	5j.
Aque ad	5viii.

M.

A tablespoonful morning and evening at first; the second week three times a day.

Keep at this dose for a month, then add 8 grains more of iodide to the mixture if the patient is standing it well, and make this addition every month. (2) The weak Parrish's syrups appear to be as popular as the more acid and ferruginous ones. We prefer the former, because they seem to do children as much good, and they certainly take them more freely.

7/34. *B. W. J.*—Oil of Lemon which has become terribinate by keeping may be improved in the following way:—For the 5 lbs. which you have take 2 drachms of permanganate of potash and dissolve in 8 oz. of water. Put the oil in a gallon jar and add this solution slowly and with shaking. Afterwards shake every hour in the course of the day, and draw off at night. Wash with tepid water, and decant.

3/49. *Wild Cherry*.—Consult the Buyers' Guide in our DIARY.

3/58. *H. E. S.*—Varnish for Gold Labels:—

	Oz.
White shellac	1
Elemi	1/2
Spirit to	8

Dissolve and filter.

For directions for applying see our issue of May 31, 1891, p. 780.

3/57. *Juno*.—(1) Watt's "Art of Soap-making" (Crosby Lockwood, 7s. 6d.) is a book which will suit you, and will give you all the information you require. Consult also the DIARY book-list. (2) The outlet for ammonia obtained as a by-product is chiefly as sulphate, for fertilising purposes. (3) A precipitate of ferric phosphate may form in the mixture—try.

3/23. *Newcastle*.—(1) Very good. (2) Yes, chlorate of potassium appears to have a "cooling" influence on the blood. (3) No; the Dr. H. E. Armstrong who lectured at Bloomsbury Square is lecturer on chemistry to the City and Guilds of London Institute. (4) No, it is an error. Thanks to you for pointing it out.

6/37. *R. S. H.*—Indoor apprentices to chemists and druggists pay premiums varying from 20l. to 200l. according to advantages offered. Outdoor apprentices seldom pay premiums, and in the North of England and in Scotland receive small salaries.

Information Supplied.

Whooping cough.—A Midland correspondent sends us the following cure—a household one, of course. It looks old-fashioned enough, but we question if modern remedies can beat it in respect to soundness of method:—"Three roots of garlic (2 oz.), the fresher the better; remove the outside skin, and beat the other well in a mortar; add to that 1/4 lb. of lard and a dessertspoonful of oil of amber. Mix all well together, and keep in a closely covered pot. Take a piece the size of a nutmeg, and rub well in the chest night and morning, also up the spine and in palms of hands. Flannel should be worn next the skin."

White Ink for Writing on Black Cards.—The writer (*P. J.* 9/5) some time since bought a small bottle of "white ink" for the above purpose, the object being to write tickets for the window. The cost of the bottle was 1s. A perfect substitute is easily made for less than 1d., with the advantage that it does not rub off so easily—*c.g.*, use—

Zinci oxidi	5j.
Aq. rosæ	5ij.
Mucil. tragac. or acacia	5ss. to 5j.

M.

Sheep dip (2/63).—In answer to "*Sapo Mollis*," I tender my experience with a sheep-dip similar to his. My way is to send out the alkali (pot. carb.) and arsenic in solution in a bottle, the soft soap and sulphur mixed as a paste. Thinking this rather bulky, I tried mixing all together, with the result that complaints of its not killing the ticks were abundant. On examining the preparation, I found that the arsenic had been converted into sulphide (orpiment), which seems much less effectual. On reverting to the old plan, the results were satisfactory once more. I have never found this unsafe with ordinary care. *ESS. LIMONIS.* (9/52.)

259/30. *Self-help* will find turpentine on a clean piece of lint suitable for cleaning gold labels on bottles and drawers; afterwards varnish with good fresh copal varnish.

ADELAIDE.

1/30. *Mist. Agrimonie Co.*—This is a pet mixture with Professor Grainger Stewart, of Edinburgh University; he produces it, each session, at a certain stage of his clinical instructions to his students in the infirmary. It is prepared, so far as I know, only by Messrs. John Mackay & Co., chemists, Edinburgh. Perhaps the hon. local secretary for the Conference meeting in Edinburgh might be able to give further information. *ADELAIDE.*

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Sulphate of Soda	—	—	—	—	—	trace
Chloride of Sodium	—	—	—	—	—	.035
Moisture	—	—	—	—	—	.82
Insoluble	—	—	—	—	—	nil

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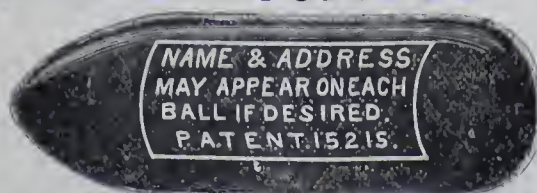
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R Pulv. Opii .. 1 dram 45/
Chloral. Hydrat. .. 1 dram
Ammon. Carb. .. 2 drams
Mass. Commun. Q.S.

No. 5.—Astringent Balls, 2/ per doz.
R Ext. Catechu .. 1 dram 20/
Pulv. Cinnamomi .. 1 dram
Mass. Commun. Q.S.

No. 12.—Condition Balls, 2/ per doz.
R Aloes Barb. .. 1½ dram 20/
Antim. Tart. .. 1 dram
Potass. Nit. .. 1 dram
Antim. Sulph. .. 1 dram
Pulv. Resine .. 1 dram
" Pip. Cayenne .. 1 scruple
" Gentian. .. 1 dram
Sapo. Mollis .. 1 dram
Theriaceae, Q.S.

No. 23.—Condition Balls, 2/ per doz.
Formula as No. 12. Aloes omitted. 20/

No. 6.—Cordial Balls, 2/ per doz.
R Pulv. Zingib. .. 3 drams 20/
" Gentian. .. 3 drams
Theriaceae, Q.S.

No. 7.—Cough Balls, 2/ per doz.
R Aloes Barb. .. 1 dram 20/
Pulv. Digitalis .. 1 dram
Potass. Nit. .. 2 drams
Mass. Commun. Q.S.

No. 16.—Cough Balls, 2/ per doz.
R Ext. Belladon. .. 1 dram 20/
Aloes Barb. .. 1 dram
Potass. Nit. .. 2 drams
Mass. Commun. Q.S.

No. 17.—Cough Balls, 2/ per doz.
R Ext. Belladon. .. 1 dram 20/
Camphorae .. 1 dram
Pulv. Digitalis .. 1 dram
Potass. Nit. .. 2 drams
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No. 21.—Cough Balls (Chlorodyne)
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Per gross.
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Potass. Nit. .. 2½ drams
Sapo. Q.S.

9.—Fever Balls. 2/ doz.
R Antim. Tart. .. 1 dram 20/
Camphorae .. 1 dram
Potass. Nit. .. 2 drams
Mass. Commun. Q.S.

No. 1.—Physic Balls. 2/ doz.
Aloes Barb. .. 4 drams 20/

No. 2.—Physic Balls. 2/6 doz.
Aloes Barb. .. 5 drams 25/

No. 3.—Physic Balls. 2/9 doz.
Aloes Barb. .. 6 drams 27/

No. 18.—Physic Balls. 3/ doz.
Aloes Barb. .. 7 drams 30/

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No. 15.—Stimulating Balls. 2/ doz.
R Ammon. Carb. .. 2 drams 20/
Aloes Barb. .. 1 dram
Pulv. Gentian. .. 2 drams
" Zingib. .. 1 dram
Camphorae .. 1 dram
Theriaceae, Q.S.

No. 24.—Stimulating Balls. 2/ doz.
Formula as No. 15. Aloes omitted 20/

No. 10.—Tonic Balls. 2/ doz.
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Pulv. Zingib. .. 1½ dram
Ext. Gentian. .. 2 drams
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Pulv. Zingib. .. 1 dram
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2/9 doz.

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Ferri Sulph. Fur. .. 1½ dram
Pulv. Zingib. .. 1½ dram
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Mass. Commun. Q.S.

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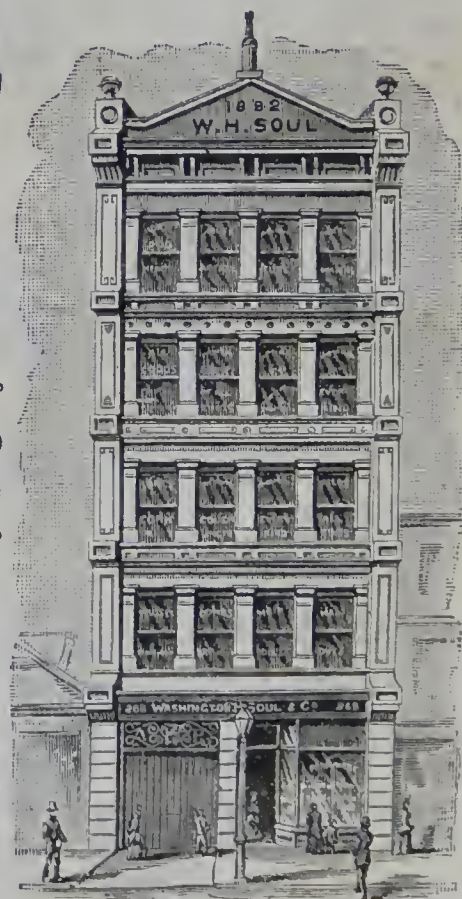


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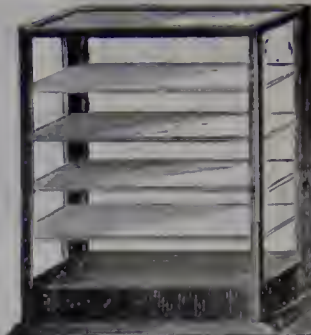
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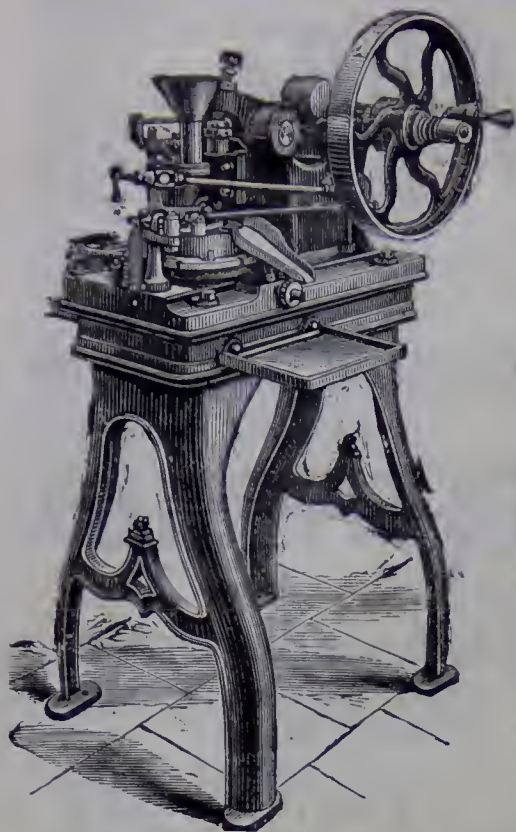
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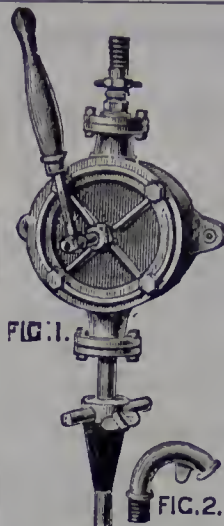


FIG. 1.

FIG. 2.

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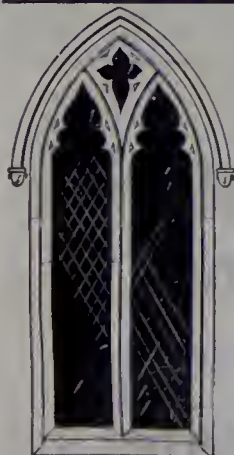
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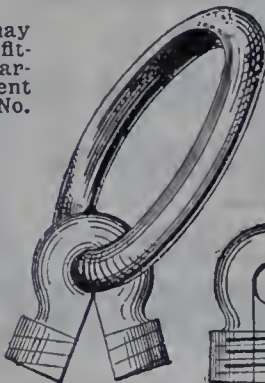
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The teats are seamless, and always retain their proper shape.
THE CHILD CANNOT POSSIBLY IMBIBE AIR.

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For inserting Bone, India-
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Comforters, or other arti-
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ring, which is guaranteed
not to break.



FIG. 1.

FIG. 2.



FIG. 3.



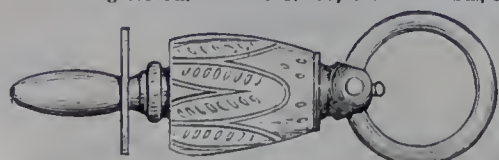
FIG. 4.

3d., 4d., 6d., 9d.,
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NEW DESIGN JUST OUT.
THE "LILY" DEWDROP. Price 6d.
With Hard Rubber Pad one side of Ring and Blind Soft Teat at the other.

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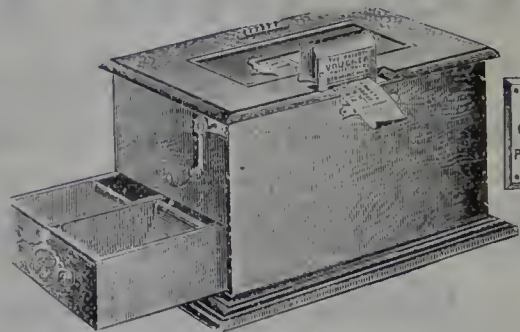
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Nut is not removed,
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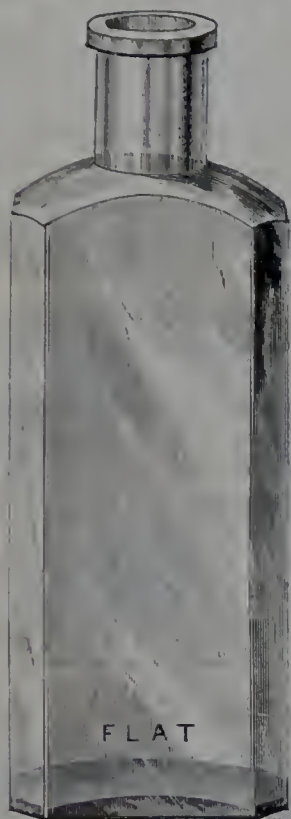
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Green Flint—Flats (ordinary and round edges), Ovals,
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Ordinary ...	8/-	8/-	9/-	9/-	13/3 per gross.
Best ...	10/-	10/-	11/6	11/6	16 9 ..

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	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	3	4 oz.
Ordinary ...	3/6	3/9	4/6	5/3	6/9	8/- per gross.
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FEEDING BOTTLES.

No.	6½-inch Rubber Tube.	Small lots.	2-grs. lots.
1.—Green Bottles, Boxwood Top Corks, White Fittings	26/6	25/6
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64.—Green Bottles, Glass Screw Stoppers, White Fittings	32/-	31/-
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CLAIMS TO BE A

Specific for all Congestive and Inflammatory Conditions of the Respiratory Apparatus,
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INFLUENZA, COUGHS AND COLDS, ASTHMA, BRONCHITIS,

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Write for Samples at once.

TOOGOOD'S POCKET INHALER,

For Charging with Eucalyptus, Pinol, Carbolic Acid, &c. 5/- dozen.

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These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

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1 dr.	2 dr.	1	2	1	1½	2	3	4	8 ounces.
1/6	1/6	1/6	1/8	1/10	2/	2/3	2/10	3/6	4/6 5/6 per doz.
THIN FOR DISPENSING—									
1	2	1	1½	2	3	4	6	8 ounces.	
1/7	1/9	2/	2/2	2/5	3/	4/	5/	6/	per doz.

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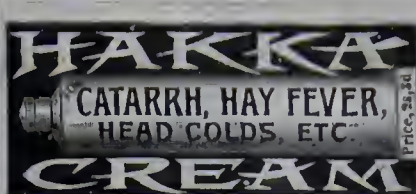
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